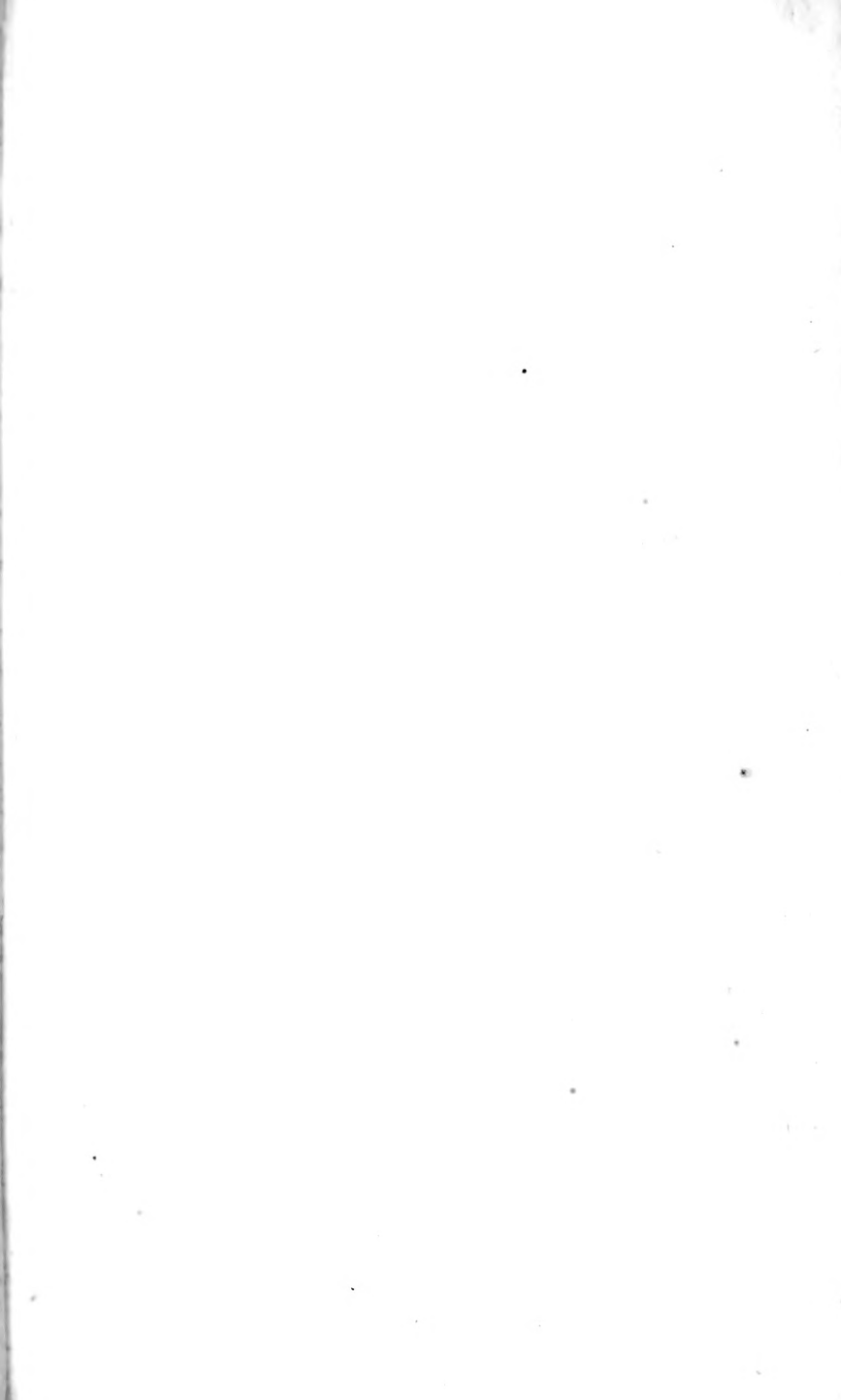


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HALF-YEARLY ABSTRACT
OF THE
MEDICAL SCIENCES.

JANUARY—JUNE.

1867.



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OF THE

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HALF-YEARLY ABSTRACT

OF

THE MEDICAL SCIENCES,

ETC.

PART I.

PRACTICAL MEDICINE, PATHOLOGY, & THERAPEUTICS.

SECT. I.—GENERAL QUESTIONS IN MEDICINE.

ART. 1.—*An Hyperæsthetic Form of Chronic Alcoholism.*

By Prof. LEUDET, of Rouen.

(*Archives Générales de Médecine*, Janvier, 1867.)

PROF. LEUDET, in a memoir on chronic alcoholism, states the following facts gathered by him in the course of his studies upon this subject:—

1. That individuals who drink alcohol to excess present, at a period of that morbid evolution which is known by the name of chronic alcoholism, a collection of phenomena called *the hyperæsthetic form*.

2. This hyperæsthetic affection is, from Leudet's experience at Rouen, more common than is generally imagined.

3. It consists in pain varying in intensity, generally deep-seated, now and then superficial; it presents itself at times in the form of a remarkable exaltation of the sensibility of the whole trunk and of the limbs. There frequently exists at the same time pain along the spinal column, analgesia or anæsthesia in certain parts of the skin, impaired motility, weakening of the muscular power, particularly in the lower limbs, cramp, and a marked exaltation of reflex movements.

4. This hyperæsthetic form of chronic alcoholism is sometimes followed by paraplegia.

5. The affections just enumerated depend upon disease of the spinal cord.

6. They are liable to present remarkable variations; when they cease they very frequently leave behind a state of infirmity more or less marked, and which consists in an impairment of the motility of the lower limbs.

ART. 2.—*The Diarrhœa of Enteric or Typhoid Fever.*

By GEORGE JOHNSON, M.D., F.R.C.P., Physician to King's College Hospital; Professor of Medicine in King's College, &c.

(*British Medical Journal*, March 16, 1867.)

The following interesting and instructive results of two different modes of treating the diarrhœa of typhoid fever are given by Dr. Johnson in a clinical lecture delivered at King's College Hospital:—

"For a number of years," he said, "it was the general practice here—and, in particular, it was the practice pursued by Dr. Todd—to treat this form of diarrhœa by repeated doses of opiates and powerful astringents. When the stools were frequent, it was a common practice to give an enema of starch, with laudanum, twice, thrice, and even oftener, in the course of the day; each enema containing, perhaps, twenty minims of laudanum. Other astringents, both vegetable and mineral—catechu, logwood, lead, and copper, either with or without opium—were often given by the mouth. This practice was certainly attended with very unsatisfactory results. The diarrhœa in those days was commonly profuse and obstinate; the bowels became painfully distended with a mixture of air and liquid; and then, to get rid of the distressing tympanitis, the patient often had to endure the depressing torture of turpentine stupes.

"Now all this has been much changed during the last few years. There has been no change in the type of typhoid fever; the disease is, in every respect, the same as in former years. There is the same intestinal ulceration; but the intestinal symptoms are far less troublesome. There is much less of obstinate diarrhœa, much less of distressing tympanitis; and this amelioration of symptoms is coincident with a complete change of practice. I have described the former mode of treatment. Our practice now is, as a rule, to leave the diarrhœa alone, and rarely to give opiates or other astringents to check it. You will understand, of course, that I am speaking only of the practice in my own wards. It is a most unquestionable fact that, since the discontinuance of the opiate and astringent treatment, the diarrhœa and the other intestinal symptoms have been far less troublesome to the attendants, and far less distressing to the patients.

"And it appears to me that the explanation of these different results is not difficult. In most cases of typhoid fever there must be more or less of diarrhœa, for there is ulceration of the bowel, and, as a consequence of this, morbid secretions are poured out, which irritate the bowel and have to be expelled. This is obvious, without entering upon any theoretical considerations. If now, while this morbid process is going on in the intestines, repeated opiates are given, either by the mouth or by the rectum, the effect is certainly not to stop or to check the ulcerative process in the bowel, nor to prevent the pouring out of morbid secretions from the ulcerated surfaces; but to lessen the sensibility and the contractility of the bowel, and so to retain the morbid secretions until they decompose, give off offensive gases, and thus be-

come a fresh source of irritation and distress. I attribute the unfavourable results of this practice mainly to the effect of the opiates in preventing or retarding the expulsion of the offensive secretions from the bowel.

"Not long since, some of you had the opportunity of seeing the effect of discontinuing the astringent treatment, in the case of a young woman who was admitted at about the end of the second week of typhoid fever. She had been under the care of a friend and former pupil of my own, and he told us that she had been treated by logwood and laudanum every six hours, yet, in spite of this, the diarrhœa had been profuse and frequent up to the very time of her admission into Twining Ward. I directed her to be put upon the usual fever diet, and to have a dose of coloured water three times a day. The troublesome diarrhœa ceased immediately; the bowels acted only once or twice a day. She made a good recovery; and my friend frankly admitted that the 'let alone' plan had been much more successful than his opiate and astringent treatment.

"In our endeavour to explain the undoubted fact, that the intestinal symptoms of typhoid fever are now much less troublesome than in past times, it is right to mention that in some other particulars our treatment has been modified. We now give much less medicine of every kind than we formerly did; and, in particular, we avoid the risk of irritating the bowels by repeated doses of mineral acids. We give alcoholic stimulants more sparingly and with more discrimination. As a rule, we give none during the early stages of the fever; when I am convinced that their indiscreet employment often increases febrile excitement, cerebral oppression, and gastro-intestinal irritation. In short, our chief reliance now in the treatment of this fever is upon rest in bed, with good nursing, judicious feeding, and stimulants when necessary. Our fever patients are fed mainly upon milk, beef-tea, eggs, and arrow-root.

"If you refer to Trousseau's *Clinique Médicale* (tome i. p. 258), you will find that his practice, when the stools of typhoid fever are frequent and abundant, is to give saline purgatives—either sulphate of soda or a Seidlitz powder. This treatment he thinks especially indicated, when the diarrhœa is associated with much flatulent distension of the bowels, and in such cases he repeats the dose several times. If, after this, the diarrhœa continue, he gives what he calls absorbent powders—nitrate of bismuth in combination with chalk, and in some cases small doses of nitrate of silver—but he makes no mention of opium as a remedy in this class of cases.

When the intestines become much distended by a mixture of air and liquid, the relief which follows evacuation of the bowels is often great and permanent. This may sometimes be effected by a laxative enema, but in most cases more surely by a table-spoonful of castor oil combined with a few drops of laudanum in some aromatic water. In such cases, if we can get rid of irritating secretions by a mild evacuant, we are acting on the principle which should continually guide us in the treatment of typhoid fever—namely, to ensure as much as possible of rest for the diseased intestine. The intestines in these cases may be irritated by uncalled-for drugs, by injudicious feeding, by the untimely or exces-

sive administration of alcoholic stimulants, by the accumulation of morbid secretions within the bowels, by muscular exertion on the part of the patient, or by rough pressure over the abdomen on the part of the practitioner. All these known sources of irritation and of injury ought, therefore, to be most carefully avoided.

"In conclusion, let me say emphatically that, when peritonitis is threatened or actually present, whether the result of perforation of the bowel or of the ulcerative process extending deeply into the tissues, our main reliance is upon absolute rest, light hot fomentations over the abdomen, and opium in full and frequent doses. I have seen cases apparently the most desperate recover under this plan of treatment; one case in particular, that of a girl, eleven years of age, in whom all the symptoms of perforation of the bowel were present. In such a case, when recovery takes place, however sudden and severe may have been the onset of the peritoneal symptoms, it must of course remain doubtful whether perforation of the bowel had actually occurred."

We here append a note which appeared in the *Medical Times and Gazette* of March 23rd:—

The Diarrhœa of Enteric Fever.—The last number of our contemporary, the *British Medical Journal*, furnishes a forcible illustration of the fact that doctors disagree. Dr. George Johnson, in his "Clinical Remarks on the Diarrhœa of Enteric or Typhoid Fever," reviews the experience obtained by his quarter of a century's connexion with King's College Hospital, and compares the effect of two different modes of treating the diarrhœa of typhoid fever. Without entering any further into his contribution, we may say that he finds his results of the treatment of typhoid fever much better now than they were in the earlier part of his experience:—"It is a most unquestionable fact that, since the discontinuance of the opiate and astringent treatment, the diarrhœa and the other intestinal symptoms have been far less troublesome to the attendants, and far less distressing to the patients." He condemns the use of vegetable and mineral astringents, avoids the risk of irritating the bowels by repeated doses of mineral acids, gives alcoholic stimulants more sparingly and with more discrimination than formerly, and thinks that, so far from seeking to restrain the diarrhœa by astringents, we ought occasionally to exhibit a mild laxative to get rid of irritating secretions from the bowels. Dr. Murchison, *per contra*, in some clinical remarks on a case of typhoid fever, after saying that there is no proof that the retention in the body of typhoid stools is deleterious to the individual, avers his belief that we have positive proofs that diarrhœa does harm in typhoid fever. From the considerations he lays down, Dr. Murchison concludes that the best line of practice consists in checking the diarrhœa of this fever as much as possible, and he recommends the very remedies which Dr. Johnson disapproves! *Telle est la vie!*

ART. 3.—*A Case in which Typhus and Pythogenic Fever co-existed, complicated with Pleuro-Pneumonia.*

By MONTGOMERY ALBERT WARD, M.B., M.Ch.

(*The Medical Press and Circular*, February 13, 1867.)

THE question as to the identity or non-identity of the virus in typhus and pythogenic fevers has, at different times since 1840, arrested the

attention of all thinking and practical physicians, for previous to this period they were considered as one and the same fever, or different stages of the same fever. Many able arguments have been advanced by the supporters of each side of the question, and even at the present time it remains, to a certain extent, a *quæstio vexata*.

Dr. Kennedy, of Dublin, has been for some time the most ardent supporter of the identity of the two fever poisons, and has brought forward many arguments to prove his views, which have been admirably answered by Dr. Hudson, in the appendix to his lectures on the study of fever, lately published.

The importance of the subject has induced Dr. Ward to publish the particulars of the following case, which occurred in his private practice last year, and which, he thinks, bears not a little on the point at issue:—

May 12th, 1866, I was summoned at twelve o'clock P.M. to visit Mr. —, who I was informed was very ill. I immediately went, and sub-joined is the history of the case:—

I was informed by his family that Mr. — (who was previously a fine, strong, healthy young man, aged twenty-five) had been in the habit of drinking for a year or so; that for the last six weeks his appetite had been gradually failing, and his family remarked him losing flesh, and much depressed in spirits. This day week—viz., May 5th—he was returning home intoxicated late at night, when he fell into a ditch of dirty water, near which a foul sewer emptied itself. Here he fell asleep, and lay all night with his feet and legs partially submerged, and his body on the side of the bank. In this condition he was found by some workmen going to their work in the morning, who aroused him up and brought him home, when he was put to bed. He remained in bed during Sunday, the 6th, Monday, the 7th, and on Tuesday, the 8th, he dressed and got up, but did not appear to be at all well to his friends, for he complained of being very cold, and sat over the fire all day. From this day until I saw him, a period of four days, he kept his bed, having got, as he thought, a bilious attack, for which he took some purgative medicines, which induced a slight diarrhœa. This morning he was attacked with a severe diarrhœa and a pain over the abdomen; he also complained of a slight pain beneath the left nipple. For the diarrhœa his family gave him some brandy and laudanum. Towards evening the diarrhœa increased and intense vomiting set in, when I was sent for. When I came I found him in the bed, propped up by pillows in a semi-sitting posture. During the last few hours he had passed some very fetid liquid stools, with some blood in them. The abdomen was very painful and tympanitic on percussion, and there was evident gargouillement over the right iliac region. On placing the stethoscope under the left nipple, where he complained of a severe lancinating pain, I heard a well-marked friction sound. His skin was hot and burning; pulse 120; tongue covered with a white creamy fur, and red at the edges; countenance dull and anxious; respirations hurried and increased.

As the vomiting, pain in the abdomen, and diarrhœa were the most urgent symptoms, I ordered him—

R Plumbi acetatis, gr. xij.

Pulveris opii, gr. iss.

Confect. rosæ, q.s.

M. et divide in pilulas sex capiat unam secundis horis.

R Sodæ bicarb. ʒj.

Acidi hydrocyanici dil. ℥viij.

Aquæ menthæ viridis, ʒviij.

Misce. Ft. mistura cujus capiat unciam tertiis horis.

A large linseed-meal poultice to be applied over the abdomen, and another over the left side of the thorax.

May 13th.—Diarrhoea greatly moderated; vomiting still continuing, ordered ice to be sucked throughout the day, and the mixture of yesterday to be continued.

14th.—The bowels were only moved once last night; vomiting entirely ceased; no pain in the abdomen; he complains, however, of the pain in the left side very much. His breathing was greatly oppressed, and there was a short cough. On examination I found that there was effusion into the left pleural sac, and for the first time to-day discovered a few rose-coloured spots over the abdomen. Ordered beef-tea and two glasses of port-wine in divided portions; also a mustard poultice to be applied over the left side of the thorax. Seeing that this was a serious case, I asked for a consultation, which was granted.

15th.—I saw him in consultation this day with my friend Dr. Forrest, who made a most minute and searching examination. Since last night the effusion into the left pleural sac had greatly increased, and the rose-coloured spots on the abdomen had visibly extended. Dr. Forrest and I pronounced it to be a case of typhoid fever, complicated with pleuro-pneumonia. Ordered:

R Calomel., gr. iv.
Pulveris opii, gr. iij.
Sacch. lactis, ℥j.

M. et divide in chartulas xii., capiat unam tertiis horis.

Emplastrum cantharidis 10 inches by 6, over the left side of the thorax. Beef-tea and four ounces of wine.

16th.—The typhoid spots were well-developed to-day, breathing more tranquil, effusion disappearing; continues very weak. Former treatment continued, with the addition of a large blister to be applied to the posterior part of the left side of the thorax. Wine increased to eight ounces.

17th.—Effusion has nearly disappeared; pain in the side continuing; cough very troublesome, expectorating a viscid sputa tinged with blood; very weak. Ordered:

R Ammoniae carbonatis, gr. xxiv.
Tinct. scillae, ℥ij.
Syrupi aurantii, ℥ss.
Infusi senegae, ℥viij.

M. Ft. mistura capiat unciam quartis horis.

Beef-tea and wine to be continued.

18th.—Slightly delirious last night; inclined to sleep very much, and very hard to be aroused; complains of no pain in the side; cough much better; tongue very dry, brown, and covered with sordes. Some maculae appear scattered over the body, interspersed with the typhoid rose-coloured spots.

19th.—Profusely maculated; wandering all night, but when aroused quite sensible. His family wished to have the opinion of Dr. Ledwich, to which I gladly consented.

20th.—I saw him to-day in consultation with my friend Dr. Ledwich, who at first pronounced it to be a well-marked case of typhus fever, until I pointed out to him some of the typhoid spots which still remained interspersed through the typhus rash. It would be tedious to your readers if I detailed the daily symptoms and treatment of this case. Suffice it to say that, with the able assistance of my friend Dr. Ledwich, who continued in attendance along with me, the poor fellow appeared to be getting on very

well, and we thought that he would have pulled through, when, on the morning of the 25th, a critical perspiration set in, and he succumbed the same evening."

The following are, Dr. Ward thinks, the points of interest in this case:—

First. The coexistence of the pythogenic and typhus virus.

Second. The rarity of the complication of pleuro-pneumonia.

Drs. Murchison, Hudson, Anderson, Todd, and others, have in a few cases observed the coexistence of these morbid poisons, and have in Dr. Ward's mind clearly proved their non-identity. That they did coexist in the above case, he thinks he has clearly proved.

This young man was employed in an extensive wine-merchant's office in this city, and was engaged during the greater part of the day in the wine-vaults, which were underground, and very badly ventilated. Here he was exposed to the temptation of constantly tipping, to which he yielded, and which subsequently undermined his constitution, thereby rendering him more susceptible of imbibing a virulent poison. Dr. Ward believes that from constantly breathing the foul and vitiated air in these vaults he contracted the typhus poison, and that he contracted the pythogenic poison on the night of May 5th, when he lay all night in a ditch, near which a foul sewer opened. This is, he thinks, what probably took place—at least, it is the only way in which he is able to explain it, after a close investigation into the history of the case.

ART. 4.—*Trichina Disease.*

(*The Lancet*, January 19, 1867.)

The English public has imbibed a thorough dread of the disease which, known as "trichiniasis," has appeared in an epidemic form, and proved so markedly fatal in different parts of the Continent, especially of late. Recent observations would seem to show that we as a nation enjoy comparative immunity from harm in this respect, and are exposed to danger chiefly by eating food prepared abroad. The facts upon which this opinion is based are given by one of the most trustworthy inquirers of the day.

At a meeting of the Linnean Society, held on Thursday, the 17th inst., Dr. Cobbold, F.R.S., gave the results of a series of experiments with *Trichina spiralis*. He had succeeded in rearing muscle-fleshworms in several dogs and cats, and also in the pig, guinea-pig, and hedgehog. He had likewise obtained the so-called intestinal form, or sexually mature trichina. All the experiments made on birds produced negative results. Birds were not a suitable territory, it was said, for muscle-trichinæ. In a practical point of view, the author of the paper remarked that there was little danger to the public health from trichiniasis in England. No case in the human body had been diagnosed during life in this country. English swine were remarkably, if not entirely, free from the so-called trichina disease. Ordinary precautions would suffice. He suggested caution as to the use of foreign meat, especially prepared meat, such as German sausages. He deprecated further experiments

with *trichina spiralis*, the whole phenomena of the development of this species being now thoroughly understood by helminthologists.

ART. 5.—*On the Temperature of Cholera Patients.*

By Dr. GUETERBOCK.

(*Virchow's Archiv*, 1867 ; *Gazette Hebdomadaire*, No. 11, 1867.)

Although many authors have sought to establish the changes of temperature which are presented in cholera, it is astonishing to see what great variations exist between the different results that have been given. These differences are owing partly to some authors having observed only a small number of cases, and partly to the method itself. As Dr. Gueterbock remarks, cholera is one of the diseases in which great difficulties are presented to thermometrical observations ; the state of the patient and many other conditions complicate the examination, particularly when the observer wishes to take the temperatures of the vagina and rectum. Dr. Gueterbock has studied this matter in about 90 patients, and he has always taken the temperature in the rectum, or vagina, as well as in the axilla. He has given the results in many well-compiled tables, in which the different facts are classified in the following manner :—the first table contains 45 cases of cholera with a fatal termination in the period of asphyxia ; the second contains 10 cases of cholera followed by recovery, and also slight cases ; another table is devoted to cases of cholera followed by different complications ; the last one gives the comparative temperatures as registered before death and a short time after.

The following is a brief résumé of the principal results obtained by the author. At first he shows that great confidence cannot be placed in the state of the temperature when taken in the axilla alone. From the examination of the comparative temperatures of the axilla, rectum, and vagina, it is shown that the variations may oscillate between $0^{\circ}9$ C. and $3^{\circ}7$ C. ; and also that no constant relation exists between them. For instance, in 31 cases of *cholera asphyxique* the temperature in the axilla was in 21 cases below 37° C., whilst out of 54 cases of the same disease in which the temperature was taken in the vagina or rectum, in 12 cases only was it below the normal standard. It must be concluded then that the temperature taken in the vagina or in the rectum is the surest and safest index of the general temperature of the body.

From an examination of 45 patients, M. Gueterbock has concluded that in the algide stage, whilst the peripheral parts of the body, as the head and limbs, are remarkably cold, the temperature when taken in the natural cavities is, in the majority of cases, increased ; more rarely it remains normal ; and more rarely still, it is slightly diminished, without any explanation of these differences being given by the manner of the termination of the disease, or by causes recognised before or after death.

The temperature was diminished in 6 cases only out of 45, and in these from $0^{\circ}5$ to 1° ; in one case the temperature was raised as high as

42° C. In algide cases the temperature was generally increased at the approach, and even at the time of death, but it did not appear to rise after death, and sometimes there was no increase at the last moment. These results, so opposed to the ideas generally accepted, the author has deduced from observations on 12 patients made a short time before death, during the agony, and within the hour that followed.

If the period of reaction be uncomplicated, there is generally no increase of heat, but there is frequently a slight lowering of the internal temperature corresponding to an elevation in the extremities. But variations of temperature are frequently observed if complications supervene; inflammatory attacks, such as exantheis and pneumonia, cause an elevation of temperature, but in no complication is this elevation so marked and so rapid as in that of parotitis; in one case of this affection the temperature of the axilla was 39°·8 C., and in a fatal case of parotitis complicated with erysipelas, it was as high as 41°·2 C. When during convalescence a rapid or considerable elevation was observed, a careful examination of the patient nearly always discovered the pathological cause.

ART. 6.—*The Prevention of Cholera.*

(*The Lancet*, February 16, 1867.)

Amongst the many papers lately published on this point, there is one which really deserves notice. It is by Herr I. Günther, and was published in Leipzig under the title of “*Die indische Cholera in Sachsen.*” It describes the progress of the cholera in Saxony, and shows how the house of correction in Zwickau was preserved from invasion of the epidemic, while in the immediate neighbourhood there were no less than 250 cases of cholera, of which 119 were fatal. There were as many as 1286 prisoners in the house of detention, yet there was not a single case of cholera within its walls. This result Herr Günther attributes to the following hygienic measures, which were rigidly carried out:—1. Complete and daily disinfection of all the waterclosets, and immediate removal of all excrementitious matters, after they had been disinfected thoroughly with sulphate of iron, carbolic acid, &c., and covered with powdered mineral charcoal. 2. Suitable diet given to the prisoners. 3. Clothing the prisoners in such a manner as to prevent all exposure to cold. 4. Constant examination of the general condition of health of the prisoners. 5. Exerting a moral influence over the prisoners in order to avoid unnecessary dread of the epidemic. The above instance is certainly a remarkable one, and argues strongly in favour of the “contagious theory” of cholera.

ART. 7.—*Cholera.*

By ALEX. LANE, M.D., Surgeon Royal Navy.

(*Medical Press and Circular*, March 20, 1867.)

In some remarks on African, West Indian, and other fevers and diseases, Dr. Lane says, in speaking of cholera, that whether it is

called pure Asiatic, English, Irish, or French, the producing poison is essentially the same, differing only in degree of violence; for that poison which produces cholera will produce no other disease whatever, therefore the cholera poison is, like all other poisons, *sui generis*, and acts almost specifically upon the organs of nutrition, and is also very peculiar in its action. He does not know a disease which is not produced by some specific poison. Where the circulation is impeded there will be disease, but in general cases you expect a general issue; yet in this case, though general, it appears that it will attack the stomach and rectum and a portion, or perhaps the whole, of the colon, and leave the intermediate portion alone. The modes of treatment are so various, as a specific has not yet been found out, that it is really difficult to make a selection. The cases which came under his observation in India were about the usual type; however, they yielded to opium and brandy, with external stimulants and rubefacients. The physicians he met with in India were certainly loud in their praises of opium, but, as they said—and he perfectly coincided with them—that opium, to be useful, must be given in large and powerful doses, and also in a liquid form, in consequence of its immediate action upon the coats of the stomach; and should a dose be rejected, there should be no hesitation about the second or third repetition—in fact, repeated as often as necessary.

ART. S.—*On the Urine in Cholera.*

By A. BORDIER.

(*Archives Générales de Médecine*, Février, 1867.)

M. Bordier, in a memoir detailing his experience of the cholera epidemic of 1866, when he served under Dr. Gubler, at the Hôpital Beaujon, refers to some interesting facts concerning the changes in the urine before and during the period of reaction.

The urine before the period of reaction.—As soon as the urine is passed, it is found in all cholera patients to be albuminous. M. Gubler considers this albuminuria to result from a parenchymatous nephritis, analogous to that occurring in scarlatina. The albumen is not always apparent under the influence of heat, a phenomenon which takes place also when the intestinal evacuations are examined, and is attributed to a change in the molecular state of the albumen. Besides the albuminous cloud formed by the addition of nitric acid, there appears also, in severe cases, a brown disc, likened very justly by M. Gubler to the colour of mahogany; this tint passes successively through all the intermediate shades to that of blue, which it always reaches, and then the bottom of the glass is covered by a layer of an indigo-blue tint, soluble in ether, and almost entirely composed of pure carbon.

This blue colour in the urine is not peculiar to cholera; it is always produced when hæmaturia is incomplete, and generally in severe fevers, when oxidation is imperfectly accomplished.

The urine during the period of reaction.—The urine which, during the

algide period, presented signs of imperfect oxidation, in the stage of reaction contains considerable quantities of urea and uric acid, substances rich in oxygen. From an analysis of Dr. Chalvet, it is proved that the quantity of urea is more than double that contained in normal urine. Albumen is still present, though only for a short time, and in small quantity; but a very curious phenomenon soon presents itself, the presence of sugar in the urine. The thirst from which in preceding stages the patient had suffered again appears, and the body is covered with boils. Glycosuria is a constant phenomenon in the stage of reaction, and is present as frequently as albuminuria is in the preceding stage. M. Bordier believes that this change in the urine is due to that paralysis of the vaso-motor nerves which characterizes this period—a paralysis which acts upon the liver as well as upon other viscera, and causes there passive dilatation of the bloodvessels, and consequently an increased flow of blood, whence results the increased activity of its functions. It is to paralysis of the vessels of the liver that M. Scheff attributes ordinary glycosuria. In all instances of this change, whatever be its cause, it is curious to witness, amongst all the signs of an increased combustion of the material of the body, the presence of so much sugar, when, as always occurs in ordinary glycosuria, it is generally diminished in quantity whenever a febrile attack supervenes.

ART. 9.—*Treatment of Cholera.*

By AUSTIN FLINT, M.D., Fellow of the New York Academy of Medicine.

(*Principles and Practice of Medicine*, 2nd edit.)

Dr. Flint states in his very valuable and elaborate treatise on the principles and practice of medicine, that "the treatment of epidemic cholera is to be considered as applicable to the different stages—viz., before collapse, during the collapsed stage, and after reaction. Prior to collapse, the paramount object is the arrest of the intestinal effusion. This effusion is the first appreciable link in the chain of morbid sequences, and, if promptly arrested before it has proceeded so far as to affect seriously the blood and circulation, the patient is usually safe. The remedy on which most dependence is to be placed in effecting this object is opium. Some form of opiate is to be given promptly in doses sufficient to effect the object. The form of opiate is to be chosen with reference to promptness of action, and the probability of its being retained. Opium, in substance, is unsuitable, from the comparative slowness with which it is absorbed. Laudanum, the acetated tincture, or an aqueous preparation, are to be preferred. But the article which I have been led to regard as the most eligible is a salt of morphia, administered by placing it dry upon the tongue. In the endeavour to effect the object of treatment in this stage, moments are precious, for there is always danger that, if the object be not promptly effected, the patient

will fall into the collapsed state. The opiate should, therefore, be given at once in a full dose. A grain of a salt of morphia is rarely, if ever, too large a dose for an adult. A physician should, if possible, remain with the patient. If the first dose be quickly rejected, a second should be instantly given. The doses are to be repeated at intervals of from half to three-fourths of an hour, until the dejections and borborygmi cease. If, owing to the occurrence of vomiting, the administration by the mouth be ineffectual, it should be given by the rectum; and in cases in which the symptoms are urgent, both modes of administration should be resorted to. The system, even in this stage of the disease, is not readily affected by opiates thus given. In view of the importance of the object, if it be necessary in order to effect it, some risk of inducing narcotism is justifiable; but if the administration be in the hands of the physician, and the effects of the doses watched with care, danger from this source may generally be avoided. The practical point is to employ the remedy freely and promptly so as to effect the object, bearing in mind the fact that the delay of half-an-hour or an hour is often fatal. Relying upon the opiate it is best not to add other remedies, lest by increasing the bulk of the doses they will be more likely to be rejected. A full dose is preferable to small doses frequently repeated, because the effect within a short space of time is greater, and the remedy is more likely to be retained. Aside from the rejection of the remedy, vomiting is, if possible, to be prevented in view of its perturbatory effects. The patient, in this stage, should be restricted to a very small quantity of water, or spirit and water, given at short intervals, or to small pieces of ice. Perfect quietude is important. He should not be permitted to get up to go to stool, and he should be urged to resist, as much as possible, the desire to evacuate the bowels. Frictions, the warm bath, sinapisms, &c., in this stage, are of doubtful expediency.

I have repeatedly succeeded in arresting the disease by this plan of treatment, and when arrested before proceeding to the stage of collapse, the recovery is usually speedy. Regulated diet, rest, with perhaps a tonic remedy, suffice for the cure. The bowels should be allowed to remain constipated for several days, and then, if movements do not spontaneously occur, simple enemas will probably be sufficient; if not, a little rhubarb or some other mild laxative may be given. I believe no other plan of treatment promises more than this, but it is not to be expected that it will always prove successful. It will fail, or rather it is not available, when, owing to the persistent vomiting and frequent purging, the remedy is not retained sufficiently long to exert its effect; and it is not available when, owing to the great rapidity of the transudation, the state of collapse occurs so quickly that there is not time enough to obtain a remedial effect. These difficulties are equally in the way of success from any remedies.

In the stage of collapse, the plan of treatment indicated prior to this stage may prove not only ineffectual, but hurtful. It is still an object to arrest intestinal transudation if it continue, but to employ opiates very largely for this object, may not be judicious with reference to the recuperative efforts of the system. The symptoms in this stage are due, mainly, to the damage which the blood has sustained in the loss of its constituents from the transudation which has already taken place.

Opiates should be given, and, owing to the remarkable degree of tolerance under these circumstances, they may be given in considerable doses, but much care should be observed not to induce narcotism. Astringent remedies, if the stomach will retain them, may be added, such as tannic acid, the acetate of lead, bismuth, &c. If, however, these or other remedies provoke vomiting, they will be likely to do more harm than good. Remedies to allay vomiting may be tried—viz., the hydrocyanic acid, creasote, and chloroform.

In a large proportion of cases, after collapse has taken place, little can be done with much hope of success. Even if the vomiting and purging cease, recovery may not follow. The blood may have been damaged irremediably. Under these circumstances it is plain that active treatment can effect nothing. Recovery, however, in a certain proportion of cases, takes place, and under a great variety of treatment. The object of treatment in the collapsed state, aside from the arrest of vomiting and purging, is to excite and aid the efforts of nature in restoring the circulation, together with the functions dependent thereon. The measures to be employed for this object are external heat, stimulating applications to the surface, diffusible and other stimulants, and alimentation.

The application of heat may be made by means of warm blankets or bottles of hot water placed near the body. The more active modes of applying heat are of doubtful propriety. I have never seen benefit from the warm bath, or the application of steam or hot-air. It is not desirable to excite perspiration, and, if perspiration occur, it should be wiped away with warm dry cloths. Violent friction does more harm than good. The surface may be gently stimulated with sinapisms, or the tincture of capsicum. Diffusible stimulants, in the form of spirits and water, should be given as freely as the stomach will bear, always recollecting the risk and the evils of inducing vomiting. It will be most apt to be retained if given in small quantities at a time, and often repeated. If vomiting be provoked by either drinks, remedies, or aliment, more or less injury is done. The ethers, stimulants such as capsicum, the essential oils, cardamom, ginger, &c., are appropriate if they be grateful to the stomach and retained. Concentrated nourishment—essence of meat, chicken-broth, and milk—is to be given in small quantities at a time, provided the stomach will retain it. It is doubtless desirable to introduce liquid into the system as far as possible. The only objection to the free ingestion of water is the risk of provoking vomiting. Small lumps of ice should be freely allowed. If the patient emerge from the collapsed state, the indications are to support the system by the moderate use of stimulants, and by alimentation; to restore the function of the kidneys by diuretic remedies and mucilaginous drinks, bearing in mind that uræmia is among the dangers of this stage; to restrain diarrhœa, if it occur, by anodynes and astringents; to strengthen by tonics, and to palliate, by appropriate remedies, the various symptoms which may arise.

In the months of September and October, 1866, when epidemic cholera prevailed to some extent in the city of New York, injections of brandy and a strong tea-infusion were used considerably with apparent efficacy in arresting the evacuations and preventing collapse.

The proportions used were half an ounce of brandy and two ounces of the tea-infusion; the injections being repeated every half-hour, every hour, or after longer intervals, according to circumstances.

ART. 10.—*Intermittent Fever.*

By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, and in the Long Island Hospital.

(*Principles and Practice of Medicine*, 2nd edit.)

Dr. Flint, in speaking of the treatment of intermittent fever, in his treatise on medicine, says that the hypodermic injection of a solution of quinia may be resorted to in cases of ordinary intermittents, when the remedy is not retained either by the stomach or rectum. This mode of administration, moreover, has the advantage of economy as regards the quantity of the remedy required; late experimental observation appearing to show that the effect is three times greater when thus administered than when taken into the stomach. The effect is also more quickly induced. It is, however, in cases of pernicious intermittent and remittent fever that the hypodermic injection of a solution of quinia promises to prove of special value, by reason of the certainty and promptness with which cinchonism may be induced by this mode of administration. After the paroxysms are interrupted, the remedy should be continued in small doses, from two to four grains daily, for a considerable period. If anæmia exist, a chalybeate should be conjoined—the citrate of iron and quinia is an eligible preparation. Relapses are prevented by this after-treatment. The diet should be nutritious, and a little wine with meals is advisable. Cathartics are to be avoided; given before the interruption of the paroxysms, they conflict with that object. If there be constipation, it should be remedied by mild laxatives or enemata.

ART. 11.—*Infantile Rheumatism and Chorea.*

By Dr. HENRI ROGER.

(*Archives Générales de Médecine*, Janvier, 1867.)

Dr. Roger concludes an elaborate memoir on Chorea, Rheumatism, and Diseases of the Heart, with the following propositions:—

1. *Infantile rheumatism.*—Rheumatism is, contrary to the opinion generally accepted, a frequent affection in young patients. It does not attack infants just born, or at the breast. Its occurrence is exceptional before the third year, and it is seldom observed before the fifth; but during the period of the second dentition, it is met with almost as frequently as in adult age. In infancy, as in other periods of life, cold, combined with damp, is the most active cause of acute articular rheumatism.

Scarlatinal rheumatism is nearly always brought about by cold; its special and habitual characters are more localized, and are limited, in most cases, to the neck and hands: they are less intense, less persistent, and the visceral complications are less frequent; the occurrence of a rheumato-scarlatinal endocarditis must, however, be admitted.

Acute torticollis is an affection peculiar to children, as lumbago is to adults.

Vertebral rheumatism is sometimes observed, and may in some cases simulate spinal meningitis.

Severe attacks of acute general rheumatism seem to occur less frequently in children than in adults: the sub-acute form is more common; but the complications are quite as frequent, and often more serious, because of the smaller amount of resistance in young patients to very active, complex, or prolonged morbid influences.

A slight attack of rheumatism, in which one or two joints are but lightly affected with simple rheumatic pains, may be complicated with endo-pericarditis, an affection always serious, and at times rapidly fatal.

A very mild rheumatism may also be the starting-point of manifold and very serious affections—as, for instance, Roger gives a case where a slight pain in the foot was followed by pulmonary congestion, endocarditis, aortitis, and chorea, with mental disorders.

The cardiac complications are, as with adults, the most frequent; they are so to such an extent that it is justifiable to assert *that there is a fixed law of coincidence of rheumatism with affections of the heart*: if the rheumatic child escape this visceral complication at the first or second attack, it will almost certainly be affected at the third or fourth, or even later. In some cases the carditis commences the series of rheumatic symptoms, and originates the diathesis. When rheumatism is complicated with peri- or endocarditis, pleurisy very frequently supervenes on the left side, and sometimes on both left and right.

Cerebral rheumatism is less frequent and less severe in infants than in adults. From Roger's observation, it is never present except in cases where rheumatism and chorea exist together.

In forming a differential diagnosis of articular rheumatism, the physician must take into consideration growing pains, acute rachitis, and abscesses in the neighbourhood of the epiphyses. The prognosis must be derived, as at all other ages, from the violence of the rheumatism and of the accompanying fever, as well as from the character of the complications, with this reserve, that the mildest rheumatic attack may be complicated with the most serious events, and end in death.

Rheumatism complicated with chorea.—A complication of rheumatism, and one which may be asserted as peculiar to childhood, is chorea. St. Vitus's dance does, in fact, appear very often in children who have previously been affected with rheumatism, and this coincidence is repeated so frequently, that it may be considered as an expression of a *pathological law*.

Dr. Roger gives proof of the close relations existing between chorea and rheumatism, by detailing 6 cases where chorea came on during the convalescence from and after the cure of rheumatism. Four cases are given where chorea and rheumatism existed together, and others where St. Vitus's dance alternated with rheumatism; one case is particularly

mentioned, in which there were 6 attacks of rheumatism, and 5 of chorea.

It is at the period of its decline—that is, when its severity has passed away—that articular rheumatism in young patients has the greatest tendency to be complicated with chorea. This complication is more common in those vague and mild cases where the rheumatic aches are taken for growing pains; it is the mild forms of rheumatism which particularly beget chorea.

There is a kind of antagonism between the violence of the phenomena of the two affections; very acute and general articular rheumatism is, as a rule, complicated from its commencement, or during its course, with cardiac inflammation, and not with chorea; and chorea, when it does supervene, is partial, not very active, and of short duration. On the other hand, it is the milder forms of rheumatism which are generally complicated with the most severe and obstinate chorea. In certain cases where the two affections, both of which are liable to relapse, alternate or combine, the intensity of the phenomena of each is counterbalanced in a remarkable manner.

The knowledge of the frequency of chorea after infantile rheumatism must modify the prognosis of the latter disease, the rheumatic infant is always threatened directly or remotely with St. Vitus's dance; in the same way a choreic infant is always liable to an early or a distant attack of rheumatism, and again, both of these affections have the same tendency to be complicated with cardiac or pulmonary inflammation.

ART. 12.—*Acute Rheumatism.*

(*Medical Times and Gazette*, March 30, 1867.)

If there be anything unsatisfactory in medicine, surely the treatment of acute rheumatism is one: it is almost as various as there are medical men to make it so, yet, curiously enough, the results are nearly identical in them all. Two patients in St. Mary's well illustrate this point: one, under Dr. Handfield Jones, has been treated by alkalies and other remedies and dieted on slops; the other, under Dr. Sibson, has had absolutely no medicine—not even a *placebo*—and has had nourishing food, with an allowance of beer, but the affected joints have been carefully kept warm with cotton wool, and absolute rest has been insisted on. The result is, that both coming in about the same time, both bad cases, are both now well, neither with any cardiac complication. Dr. Sibson looks upon rheumatism as a disease which will run its course, the same as scarlatina (which, by-the-bye, he treats, or rather does not treat, in the same way) or measles, and that it is useless to attempt to cut it short. Alkalies, as impoverishing the blood, he views as likely to retard rather than aid recovery.

ART. 13.—*Blister Treatment of Rheumatism.*

Cases under the care of Dr. PEACOCK.

(Medical Times and Gazette, January 19, 1867.)

Dr. Peacock relates the following cases in which the blister treatment proved particularly useful:—

CASE 1.—*Acute Rheumatism: Old Mitral Disease: Great Anæmia: Rapid Relief from Blisters: The Rheumatism cured: The Cardiac Disease remaining as before.*—C. M'C., aged 22, a widow, with one child a year and 9 months old, admitted into Elizabeth's Ward, St. Thomas's Hospital, on August 22nd, 1866. When admitted she was labouring under symptoms of rheumatic fever, and was very much prostrated. She stated that her father and mother were both dead, the former having died about sixty from bronchitis, the latter at fifty-four, of bronchitis and dropsy. She had lost one sister after her confinement, who had disease of the heart after rheumatism; and of three others who were still living, one was delicate and had had rheumatic fever. She had never had any brothers. She herself had always been delicate, and had suffered from palpitation of the heart for six years, and six months before her admission she had had an attack of inflammation of the chest. She was of a very fair complexion, with light hair, and very pale and thin. The rheumatic symptoms under which she laboured commenced three days before admission. When admitted she had great pain and some swelling in both ankles and the left knee and shoulder. A systolic murmur was heard at the apex of the heart, and there was considerable constitutional disturbance, with much prostration of strength. She was directed to have blisters applied near the affected joints, to take two grains of iodide of potassium and ten of bicarbonate of potash in an ounce of decoction of bark three times daily, and to have four ounces of wine in the day.

Aug. 29th.—She is very much relieved. The skin is cool and moist, the pulse 108 and feeble; tongue clean and moist. There is still some swelling about the ankles, but the tenderness is much less both about those joints and in the right knee and shoulder. There is a soft systolic murmur audible most intensely and most prolonged at the apex. About the nipple it is preceded by a rougher sound. The blisters all rose well and discharged freely, and their operation was attended by immediate and great relief to the pain.

30th.—The blistered surfaces have quite healed. The ankles still continue slightly enlarged, but the pain and tenderness have entirely disappeared. Pulse 72, quiet. She is very weak and anæmic. The murmur still continues. The systolic sound is immediately preceded by a short but distinct sound of a somewhat harsh character. To discontinue the former medicines, and take quinine and iron, and have the mixed diet with potatoes.

From this time she steadily improved, except that on one occasion she had a violent attack of palpitation, caused by excitement at seeing a child dying in the ward. She was discharged cured of the rheumatic symptoms and much improved in general health, but with the mitral affection as before, on Sept. 20th.

CASE 2.—*Acute Rheumatism: Very little Relief from General Treatment continued for Ten Days: Great and immediate Benefit from Blisters: Entire Cure.*—C. C., aged twenty, single, in service, admitted into Elizabeth's Ward on Sept. 28th, 1866, labouring under symptoms of rheumatic fever

of three days' duration. She had had a cold for about a month before the commencement of the rheumatic symptoms, and did not know any special cause for her seizure. She was first taken with pains in the back, passing to the shoulders and knees, and shortly afterwards became feverish. When admitted she was suffering severely from the rheumatic symptoms, with proportional constitutional disturbance. The catamenia had been absent for nearly two months. She was directed to have the bath, to take two pills of blue pill and rhubarb, and \mathfrak{Dj} of bicarbonate of potash every three hours. The following day she had some pain in the region of the heart, and a mustard poultice was applied, and a dose of calomel and opium given.

On Oct. 4th, twenty minims of *vin. colchici* were directed to be taken in the carbonate and sulphate of magnesia mixture, and she was ordered to have eight grains of Dover's powder each night.

On Oct. 9th Dr. Peacock, who up to this time had been from home, first saw the case. Up to this time there was little, if any, improvement. Her pulse was quick (120 in the minute), tongue much furred, skin warm, very moist, and the perspiration had a very sour smell; she was suffering extremely from the rheumatic pains, and the right knee, the left ankle and knee, and the two shoulders were swollen and excessively tender, and she lay in a very constrained position, and could not bear to be moved. The heart's sounds were without murmur. She was directed to discontinue the colchicum, but to take the Dover's powder at night, and, as the bowels were confined, the aperient medicine, and to have blisters applied above the five affected joints.

12th.—All the blisters rose well and discharged freely; she is very much relieved; tongue still furred, but less so than before; pulse much less quick; skin still moist, but the acid smell is almost entirely gone; the joints are still very tender, but are less swollen, and the pain is somewhat better, except in the left shoulder; she has slept more comfortably last night; the bowels are sufficiently acted upon, and she passes water freely—quantity, two pints in 24 hours; specific gravity 1023; very acid; slight flocculent deposit, partially dissolving on application of heat, and entirely on addition of nitric acid.

15th.—Expresses herself as decidedly better; her tongue is clean, though slightly dry; pulse quiet, 64; skin comfortably warm and moist; she sleeps well at night, and is free from pain; there is still some swelling and tenderness of the left knee and ankle, and of the right shoulder; she speaks with some difficulty, and the throat is red and the tonsils swollen. To have two other blisters applied—one below the left knee, and the other in front of the right shoulder; the mixture to be taken only twice daily.

18th.—The last two blisters rose well, and the pain and tenderness and swelling of the joints have entirely subsided; tongue nearly clean, but somewhat dry; pulse quiet and feeble, 76; bowels sufficiently acted upon. To continue the mixture and take the quinine and iron pills twice daily.

22nd.—She was not quite so well, having a recurrence of pain, and two other blisters were applied—one above the left ankle, the other above the corresponding knee.

On the 28th she complained of pain across the chest, for which no cause was detected, and she had also pain in the extremities; she was becoming weaker, and the pulse was increased in progress and irritable. The pills were directed to be taken thrice daily, and she was ordered to have three ounces of wine.

29th.—She is much better, being entirely free from pain, and the joints are not tender, though still somewhat stiff; tongue slightly furred and dryish; pulse feeble and somewhat irregular, 68; the throat is still sore,

but the tonsils are less enlarged. To have the pills increased to three daily, and to take four ounces of wine.

From this time she steadily improved, being entirely free from pain, and the joints completely recovering their mobility. She continued, however, to speak somewhat thickly, and the tonsils, more especially the right, were still enlarged. This, however, subsided, and she was discharged cured on Nov. 22nd.

ART. 14.—*Remarks on Hæmorrhagic Rheumatism.*

By Dr. PERROUD, of the Hôtel-Dieu, Lyon.

(*Journal de Médecine de Lyon*, Décembre, 1866; *Gazette Hebdomadaire*, No. 5, 1867.)

"Although examples of hæmorrhagic rheumatism or rheumatic purpura have been given by Legroux, Worms, Ferrand, Constantin, Paul, and Blachez, cases of this disease are yet but few. M. Perrond reports three fresh cases, of which the following is a recapitulation:—

"In the first case, a man aged thirty-five, who had been already suffering from several attacks of acute articular rheumatism, was affected with general and sub-acute rheumatic pains in the joints, which persisted for five months. During his convalescence an eruption of small confluent ecchymoses appeared in the lower limbs, and then extended to the trunk and right arm.

"Soon after albumen appeared in the urine, and then anasarca; there was no epistaxis, no tendency to hæmorrhage from the mucous membranes, no adynamia, but simple general debility with discoloration of the skin. The rheumatic pains disappeared in a short time, and the anasarca and petechiæ increased and afterwards disappeared without having had the smallest influence upon the rheumatism itself."

"In the second case, a man aged twenty-two years, who had been generally healthy, although of a weak constitution, was attacked with acute articular rheumatism, which went through the usual progress of this affection, but was complicated with a marked tendency to hæmorrhage. These hæmorrhages presented themselves at the commencement of the disease; they occurred from the pituitary, conjunctival, and buccal mucous membranes; they were presented in the form of extensive ecchymoses under the skin and into some of the joints, as evidenced by the ecchymotic tint apparent over the right elbow and both feet; and by articular swellings; in addition to their great extent, the purpuric spots presented on the face two rare and remarkable phenomena: one, the presence of phlyctenulæ; the other, an escharotic withering of the superficial parts of the skin, followed by separation of the mortified part, and subsequent reparation of the wound; there was also an extensive deep-seated and painful swelling of the right thigh, caused probably by intramuscular ecchymosis; finally, there was in this case hæmaturia and concomitant anasarca."

"In the third case, the patient was, after a chill, attacked with headache and shivering, and at the same time experienced a feeling of obstruction in the throat, with apparent dysphagia. Four days later,

pains came on, which commenced in the knees, and extended to several joints. The presence of acute articular rheumatism was very clear. Towards the eighth day, petechiæ appeared upon the lower limbs, and later still, hæmaturia accompanied by acute lumbar pains. Albumen was found in the urine, and as a consequence of this anasarca supervened, and finally, amaurosis, epileptiform convulsions and coma; the patient, however, got well.

"M. Perroud remarks that these observed cases present common characters by which they can be all brought together into one pathological division; in the three cases, the malady put on at first the form of acute semi-articular rheumatism, had this not been so, there might have been hesitation in deciding between hæmorrhagic rheumatism and simple purpura."

It is interesting to connect these facts with those that were reported by M. Worms in 1860, and by M. Blachez in 1865. Notwithstanding the gravity of the affections, it is evident that though the purpura may be considered a sign of considerable alteration in the blood, the terminations were yet satisfactory. In conclusion, there is to be remarked the analogy existing between the second case reported above, and that observed by M. Worms (*Gazette Hebdomadaire*, No. 30, 1866), in which eschars were described as having been present over the ecchymoses.

ART. 15.—*Gouty Deposits.*

(*Medical Times and Gazette*, March 30, 1867.)

The following case exemplifies a simple method of treating gouty deposits in the small joints which Dr. Broadbent has found effectual at St. Mary's Hospital. This is to wrap the hands in linen or flannel dripping with water, warm or cold, and enclose them in a waterproof bag all night. This very speedily removes inflammatory stiffness, and little by little the concretions of urate of soda soften, frequently disappearing entirely. Dr. Broadbent has, in other cases, applied alkaline solutions, and water acidulated with nitric acid, to one hand, while water alone has been applied to the other, and has come to the conclusion that water is the agent in the process of removal. Urate of soda is soluble in a sufficient quantity of water. When once deposited round the joints it is extra-vascular, and not readily acted on through the blood, but water being absorbed by the skin effects its solution, and when dissolved it is carried away.

The patient now under observation has persevered with this application for more than six months, and has been rewarded by great improvement, both in the appearance and usefulness of his hands. He has been taking iodide of potassium and cod-liver oil. It may be well to add that he has on former occasions had the same internal remedies with great advantage as to his general health, and in the relief of sub-acute gouty attacks, but without any effect on the deposits.

ART. 16.—*On Fatty Degeneration of the Diaphragm.*

By GEORGE W. CALLENDER, F.R.C.S., Assistant-Surgeon to St. Bartholomew's Hospital.

(*The Lancet*, Jan. 12, 1867.)

The following cases came under Mr. Callender's observation some years ago—1855-58—whilst he held the appointment of Demonstrator of Morbid Anatomy at St. Bartholomew's Hospital, and consequently whilst it was his duty to make the medical post-mortem examinations. He publishes them now because he is not infrequently hearing of cases of death from supposed fatty heart, but in which cases the earliest symptoms have been conspicuous for the remarkable disturbance and embarrassment of the breathing as distinguished from signs of failure of the cardiac action:—

CASE 1.—My attention was first drawn to the occurrence of fatty degeneration of the diaphragm by the following circumstances:—J. M., a female, aged fifty-nine years, married, was admitted into St. Bartholomew's Hospital on the 30th of December, 1855, under the care of Dr. Hue. There was nothing in her condition to indicate the speedy termination of her life, for she complained only, in addition to a slight bronchial inflammation, of being faint and ill, without being able to refer to any special symptoms. She was exceedingly fat, her breathing was shallow, and her respirations rapid. The bronchial affection was quickly recovered from, and she was on the eve of leaving the hospital, when, on the eleventh day after her admission, she was found by the night-nurse "struggling for breath," and died almost immediately.

I examined her body eighteen hours after death. Although an abundance of adipose tissue existed wherever fat is usually present, the voluntary muscles retained a natural appearance. The heart and liver were far advanced in fatty degeneration, as also was the diaphragm, to an examination of which I was guided partly by the obscure circumstances attending her death and the story of the embarrassed breathing, and partly by the pale and mottled appearance of the muscle as seen through the covering of peritoneum. The other organs and vessels of the body were natural.

CASE 2.—Some time later the following case came under my notice:—S. P. M., a female, aged fifty years, single, was admitted into St. Bartholomew's Hospital, on January 1st, 1857, under the care of Dr. Hue, suffering from rheumatism of three weeks' duration, the present being her first attack. Inflammation of the pericardium, as well as of the endocardium, required especial treatment. She continued without any material change in the symptoms until the fourth day, when, at half-past two in the morning, she was seized with orthopnoea, with sudden and great depression as though from some severe shock, became livid, cold, and bedewed with a clammy perspiration. Within an hour she was almost pulseless, her breathing entirely thoracic, and so noisy that nothing could be determined with the stethoscope. Her abdomen was distended with flatus, and painful on pressure; its walls were rigid and motionless. Sinking rapidly, she died the same morning at nine o'clock. Mr. Wood, to whose kindness I am indebted for this history, adds, "I could not help feeling that her mode of death resembled that from peritonitis from ruptured intestine;" and he suggested that this might be a case of spoiled and fatty diaphragm.

On making the post-mortem examination, twenty-four hours after death, the body was found tolerably well-nourished, but the integument was of a dusky purple, as with people dead from engorgement of the right heart and lungs. On opening the thorax the heart was seen considerably enlarged. The pericardium was adherent, as also were the pleuræ opposite the diaphragm and the lower parts of the chest. The cavities of the heart were dilated, and the left ventricle was also hypertrophied (thick-walled). The cusps of the mitral and of the aortic valves were thickened and fringed with deposits. The lungs and the right cavities of the heart were filled with dark fluid blood. The folds of the peritoneum were laden with fat, which tissue was present in only small quantities in other regions of the body. The remaining abdominal and pelvic organs presented a natural appearance. The skull and its contents were natural.

The diaphragm was pale, with the exception of those portions which arose from the bodies of the vertebrae, and retained their ordinary aspect. On closer inspection, the remainder of the muscle was seen to be mottled with pale-yellow specks; these resembled the markings often noticed in the muscular walls of a fatty heart. When examined under the microscope, this tissue was found degenerated into fat, the granules of which destroyed and took the place of the muscular structure. The heart was the seat of ordinary fatty degeneration; but the muscles of the body, such as the intercostals, the pectorals, and the psæ, which were purposely examined after the condition of the diaphragm had been observed, were quite natural in appearance; and the same may be said of the voluntary muscles generally in the cases which remain to be described. A drawing of this diaphragm is in the museum of the hospital.

CASE 3.—In this instance, death resulted from a combination of causes, but the disease of the diaphragm had made considerable progress. A. M., male, aged fifty-three years, was admitted into the hospital, under the care of Dr. Hue, on March 18th, 1857. It was learned from his friends that evidence of chest mischief had existed for seven months. The day before his entering the hospital symptoms of coma were first noticed; they rapidly became confirmed and persistent. When seen, the patient was in a profound coma, which continued until death. Treatment availed nothing.

The body was greatly emaciated, and the muscles generally were pale, but otherwise natural. The arachnoid was opaque, and raised from the pia mater by a quantity of serous fluid. The brain had its ventricles greatly dilated and filled with clear fluid, but there was no evidence of tubercular deposits on their lining membrane. The lungs were laden with tubercles, and were riddled with cavities. The heart was pale, flabby, and the seat of fatty degeneration. The diaphragm presented appearances like those of the heart, the crura being the parts least affected. The yellow mottling and the granular fatty change in the fibres were distinctly marked. All the other organs presented a natural appearance.

CASE 4.—In September of the same year, J. A., a male, aged fifty-two, died in one of Dr. Farre's wards from extravasation of blood into the pons, medulla, crus cerebri and crura cerebelli of the right side, with a history of apoplexy of twenty-four hours' duration. Here also, in brief, the arteries, heart, diaphragm, and liver were spoiled by fatty degeneration.

It would be useless to enumerate other cases similar to those just related. The following history and post-mortem examination is, however, interesting as differing in many respects from those thus far referred to.

CASE 5.—E. C., female, aged thirty-two years, was admitted on Feb. 12th, 1856, into one of Dr. Burrows's wards, having suffered for five months from the ordinary symptoms of phthisis. From time to time, and more

frequently of late, she had been subject to attacks of urgent dyspnœa, attended with pain, such as that supposed to characterize angina pectoris.

She was labouring under one of these when she was brought to the hospital. She held her hand to her heart region, was unable to lie down, and her breathing was entirely carried on by the upper part of the chest (superior intercostal). A cough, short and abrupt, was evidently affected by her inability thoroughly to expand the thorax. Her abdomen was retracted and fixed. Despite stimulants, her breathing became more and more laboured, the pain persisting, and she died seventeen hours after her admission.

The body was emaciated. The muscles were pale, but their tissue was natural. The several organs and viscera were natural, except the following:—The right heart was dilated, and both it and the left heart were affected with fatty degeneration. The bloodvessels were atheromatous. The diaphragm presented the following appearance:—Its muscular tissue was pale and wasted; it was flabby, and easily torn. On looking closely at it, a number of minute yellow specks were seen scattered throughout its tissue: for the most part arranged one after the other in little lines, which took the course of the muscular bundles. Most noticeable around the central tendon, this change became less marked towards the crura; and in the latter appeared to have made but little progress. The diaphragm was firmly adherent by the pleuræ to the lungs, which in their turn were fixed by adhesions to the remainder of the walls of the chest. It was in the portions speckled as above described, that the fatty decay had made the greatest advance. The lungs were filled with tubercles, in various stages.

CASE 6.—Another case was that of a charwoman, aged twenty-two, but old beyond her years; the mother of several children; a broken-down, ill-nourished creature. She was brought to the hospital on the morning of Jan. 12th, 1858, and was admitted into Dr. Burrows's ward. It was ascertained that she had suffered from a cough for three weeks; that she often broke out into a cold perspiration, with faintness, and urgent dyspnœa. She was, when first seen, in a dying state. Respiration hurried, shallow, and entirely thoracic; abdomen tender, retracted, and rigid; pulse 120, very feeble. Despite stimulants, she died four hours after her admission, complaining almost to the last of the great faintness, and of the embarrassed breathing.

On making a *post-mortem* examination, it was found that she had extensive aortic disease, with a fatty and dilated heart (foramen ovale patent), and a large congested liver. The diaphragm, like the heart, was the seat of fatty degeneration. This change, whilst it involved all that portion connected with the ribs and the tendinous arches, was absent from the crura.

That the muscle which works next hardest to the heart, and under conditions somewhat resembling its mode of action, should be liable to suffer from a similar degeneration of tissue, is sufficiently evident; indeed all which has been proved and argued for the one may with equal justice be said of the other. The unlikeness of the mode of death occurring chiefly from fatty diaphragm as compared with that from a fatty heart lies, as it seems to Mr. Callender, in the distress and difficulty of breathing which, from the onset, attends the former—a condition noticed only secondarily, if at all, with the latter.

ART. 17.—*Contributions to the Treatment of Infantile Syphilis.*

By Dr. RICHARD FÖRSTER, Dresden.

(*Deutsches Archiv f. Klin. Med.*, ii. 2; *Schmidt's Jahrbücher*, 1867.)

Dr. Förster presents, in a table compiled by himself, the result of the treatment of 68 syphilitic children. As it could not be precisely made out in some cases whether the disease were acquired or hereditary, he makes use of the term infantile syphilis, and divides the children treated by himself into two classes:—

1. Children under the age of six months.

(a) Those who at the commencement of the treatment were still at the breast.

(b) Those who at the commencement were no longer at the breast.

2. Children above the age of six months: all of whom had discontinued suckling.

The general results were as follows:—

Out of 68 children (28 boys, 40 girls, the ages varying from that of twelve days to four-and-a-half years), 45 recovered, a little over 66 per cent.; 23 died, about 34 per cent., nearly one-third. Four children were treated for one relapse; one child for a second relapse. The treatment of the relapse generally occupied less time than the treatment of the first attack.

The result of the treatment of young children presented a very remarkable dependence upon the nature of their food. Out of the 36 children under the age of six months, who, at the commencement of the treatment, and in most cases during the whole time, were at the breast, only 6 died—one-sixth; and among these is included a premature birth. On the other hand, out of 18 children, all under the age of six months, who from the beginning of the treatment were supported by artificial food, 13 died, more than two-thirds.

These figures, according to Förster, tell so plainly against artificial nourishment, as affecting infantile syphilis in a very unfavourable manner, that it is a matter for surprise that this point has not been brought more prominently forward. Förster also quotes Wertheimher, who points out that "the natural breast-food is an essential condition of the cure of syphilis in young children," and declares that, from his experience of hereditary syphilis in children, it is imperatively necessary for the mother herself to suckle the child. The treatment consisted, in most cases, in the administration of the proto-iodide of mercury. Additional remedies were applied in 21 cases: in 12 calomel was given internally, or the red oxide of mercury ointment applied externally; in 3 cases preparations of iodine were combined with the mercury. In 2 cases only was mercury not given. Nitrate of silver, and zinc and steel, were frequently added.

The dangers said to attend the use of the proto-iodide of mercury have, according to Förster, been very much exaggerated, and it appears from his experience that the limits of its applicability are tolerably

wide. He insists, however, upon the fact, that the remedy is to be given generally in small doses; as from $\frac{1}{12}$ th to $\frac{1}{8}$ th of a grain twice in the day, occasionally with a little opium. Förster remarks that under the influence of the proto-iodide the diarrhœa which complicates syphilis diminishes. Very severe purging, however, he states, contra-indicates this remedy. The assertion that salivation is caused by this preparation is not well founded; in these cases no instance of it was observed. The whole amount of the preparation given to each child varied in different cases from $2\frac{1}{2}$ to 8 grains; the average quantity being $5\frac{1}{2}$ grains. Out of 51 children treated by the proto-iodide alone a third died. The period during which this preparation alone was administered varied in the whole number of cases from $2\frac{1}{2}$ to 13 weeks. The whole treatment lasted generally a little over 8 weeks. The shortest period was $2\frac{1}{2}$ weeks; the longest 33.

ART. 18.—*On Manifestations of Syphilis in the Lungs and Intestines.*

By Dr. MESCHÉDE.

(*Archiv f. Pathol. Anat.*, Dec. 1866; *Archives Générales de Médecine*, Mars, 1867.)

Carl Bommey, aged thirty-six years, labourer, came under the notice of Dr. Meschede in May, 1858, and was then suffering from inveterate constitutional syphilis. Two years previously he contracted a chancre, and the usual syphilitic affections soon followed. From October, 1857, to February, 1858, he had been subjected to several courses of anti-syphilitic treatment.

When seen for the first time by Dr. Meschede he was much emaciated, and his general condition was very unsatisfactory. On both legs were presented syphilitic ulcers, which had undoubtedly succeeded to a neglected eruption. The backs of the hands were covered by numerous roseolous stains; mucous tubercles existed over nearly the whole extent of the mouth. The patient complained very much of gastrodynia, which had troubled him for two months.

The roseolous spots and the ulcerations were speedily removed by external applications, but the gastrodynia resisted every remedy: bismuth, nitrate of silver, opium, valerian, &c., were ordered, but to no purpose. The patient got worse and worse, and on May 5th, 1860, died from pleuro-pneumonia of the right side.

The body was opened on May 7th, 1860. In the small intestines were found 54 ulcers, varying in length from one to six centimetres. The bases of the ulcers, which in almost every instance involved the muscular coat of the intestine, were formed of granulations stained with black pigment; over some ulcers fibrous cicatrices had formed; small fibrous nodosities were found in the peritoneal lining at these parts where the membrane corresponded to the ulcers, and here also the serous and muscular coats were thickened. These lesions did not extend beyond the ileo-cæcal valve; the mucous membrane of the duodenum

presented signs of chronic inflammation, and the pylorus was considerably thickened; the edges of the liver were atrophied, the parenchyma of the organ was pale, and the acini presented in their centres pigmentary deposits. The spleen was softened.

In the right pleural cavity was found serous fluid and also much false membrane; the inferior lobe of the right lung was carnefied; the two upper lobes were œdematous, and presented marked signs of pneumonia. Irregularly disseminated through the tissue of the right lung were found a number of knot-like deposits, each of these was of the size of a small nut, had a gelatinous structure, and, in fact, resembled in nearly every particular those morbid products generally described under the name of gummata.

ART. 19.—*Cases of Local Œdema: their Nervous or Mechanical Origin.*

(*Medical Times and Gazette*, February 9, 1867.)

A very curious case recently under observation in Guy's Hospital is one of œdema of the arms and hands alone, unaccompanied by dropsy of any other part. This patient, of whom the notes were taken by Mr. W. B. Lewis, was under the care of Dr. Moxon.

H. P., aged thirty-five, was admitted into Stephen Ward. He is a labourer, and has been much exposed to cold and wet. About two weeks since a swelling appeared on each shoulder, accompanied by slight pain. This lasted for three or four days, when it gradually subsided, but only to return in the arms.

On admission, it was found that there was great œdema of the upper limbs from the shoulders downwards, even to the backs of the hands. There was not the slightest swelling of the face or of the legs, and there was no ascites. The most careful examination of the chest failed to yield any evidence whatever of disease of the heart or lungs. No thickening of any of the large veins could be detected, nor enlargement of the superficial veins. The two arms were about equal in size. They pitted deeply on pressure, but the skin was somewhat tense. The urine was of normal quantity, and contained no albumen.

The cause of the dropsy in this case appeared a mystery. It was difficult to suppose that it could arise from obstruction to the veins, for the head and neck not being swollen, the only veins which could have accounted for the condition would have been the two subclavians.

Dr. Moxon ordered him a mixture containing nitre and tincture of digitalis in infusion of broom. He was allowed to have full diet. Under this treatment the swelling rapidly subsided, and in six days after his admission it had entirely disappeared. There remained for a time a slight stiffness in the muscles, and particularly in the tendons of the fingers. He was discharged on the twelfth day, cured.

The difficulty of accounting for this case by attributing it to any local changes in the veins or other structures would probably lead many to class it with those which Professor Laycock has ascribed to the influence

of the nervous system. Indeed, it probably goes much further to support Dr. Laycock's views than many of those on which he himself relied. An observation made by Dr. Hilton Fagge in the post-mortem room at Guy's, in 1865, shows, however, that the nervous system is not necessarily concerned in the production of all dropsies which appear capriciously distributed. A patient came into the hospital with aortic and mitral disease, in whom the left arm and hand were markedly more œdematous than the corresponding parts on the right side. The left breast, also, was fuller, and the left side of the face more swollen. After death, besides the valvular disease, the pericardium was found to be adherent by loose cellular tissue, and there were remains of old pleurisy on the left side. The inflammatory action had also extended to the tissues in the anterior mediastinum, above the aorta, and in front of it. All these parts (including the thymus, which was unusually distinct) were imbedded in firm fibrous tissue. The left innominate vein, in particular, was surrounded by this material, so that its walls were rigid. It contained a clot, black and soft in the centre, but firm on the surface, and adherent to the lining membrane. This clot extended upwards into the left jugular and left subclavian veins, and downwards so as to project into the commencement of the superior cava. The lower part of the clot was brown, adherent, thin, and hollowed out in the centre, so that the blood had evidently been able to pass through that part of the vein.

ART. 20.—*A Case of General Ochronosis of the Cartilages and Cartilaginous Tissues.*

By RUD. VIRCHOW.

(*Archiv f. Pathol. Anat.*, Dec. 1866.)

In a post-mortem examination of a man who had been admitted into the hospital at Berlin, for an injury to the head, and who was afterward affected with ascites, hydrothorax, and pulmonary œdema, the following remarkable appearances were presented:—

On opening the thorax, it was noticed that all the costal cartilages were stained black, as if they had been saturated with ink. The same staining was noticed in the intervertebral discs, in the cartilages of the larynx and bronchi, in those of the nose, and in the cartilaginous part of all the joints. The colour was not quite the same in all the cartilages affected; in those of the joints—as of the knee, for example—it was not so deep as in the costal cartilages, but the tint increased in intensity as it approached the osseous tissue, and at the line of union between the cartilage and the bone it was quite black.

These differences in tint were noticed particularly in the cartilages of the trachea, in which, however, the colour was less intense superficially than in the centre. Very thin sections of the cartilaginous substance presented a brown colour, proving that the deep black was but a condensation of brown layers. On microscopic examination it was seen that the cartilaginous tissue was uniformly stained a brown tint.

Virchow states that these phenomena were without doubt due to imbibition. At first, it was thought that the staining was the result of a long-continued use of nitrate of silver as an internal remedy. But nothing could be found in the antecedents of the patient to support this view. It was observed besides, that those tissues which in structure approach somewhat to cartilage, such as ligaments and tendons, presented the same staining, which was deeper in the centre than at the periphery. The same appearance was noticed in the tendons of the quadriceps extensor muscle of the thigh and of the muscles of the gluteal region, also in the semilunar cartilages. The internal coat of the arteries also presented the same dark colour.

By chemical examination no silver nor metal of any kind could be discovered. A pigmentary substance was extracted similar to hæmatosine, and to the compounds derived from it; it was insoluble in sulphuric acid, which, however, increased the intensity of the colour.

These facts led Virchow to suppose that the staining was due to an imbibition of the colouring matter of the blood. The deeper tint of the articular cartilages, at their line of union with the osseous tissue, could be explained by the fact that at this point the vascular system is the most developed. In the same way the staining of the internal coat of the arteries could be explained, and also that of the costal cartilages, the colour of which was lightest in the central parts, which are the least vascular.

The supra-renal capsules were not altered in this case, but it should be mentioned that the arteries had undergone atheromatous degeneration. The synovial membranes were unusually vascular. The knee, together with other joints, presented those changes which are generally seen in dry arthritis. The cartilages of the larynx were almost completely ossified, and the costal cartilages were twisted in a manner somewhat similar to what occurs in rickets. In all parts of the affected cartilages the cells could be seen under the microscope enlarged and multiplied, a condition which indicated chronic irritation of this tissue. Virchow proposes to call this affection *ochronosis*. He compares this pathological condition with that which exists normally in the rete mucosum of the cuticle, in the hair, and in the choroid coat of the eye. He states that a brown staining of the cartilages of the chest and bronchi is sometimes noticed after death in old people, and he considers the present case to be a more striking example of the same *pathological change*.

ART. 21.—*On the Influence of the Sewing-Machine on Female Health.*

By J. LANGDON H. DOWN, M.D. Lond., Physician to the Earlswood Asylum, and Assistant-Physician to the London Hospital.

(*British Medical Journal*, January 12, 1867.)

In this very interesting paper Dr. Down says, "It has fallen to my lot to meet with, at the out-patient department of the London Hospital, a

large and rapidly-increasing number of patients who have discarded the labour of the sempstress, and assumed the business of the machinist; and I have been for some time struck with the similarity of symptoms which many of them present. So marked have been some of the features, and so frequent has been the coincidence of the symptoms with the use of the sewing machine, that I have been in the habit of pointing out this relation to the students who have attended my practice, and have regarded the use of the machine and the symptoms to some extent as cause and effect.

"These patients for the most part complain of palpitation of the heart; of palpitation, not depending on exertion, but frequently troubling them at night, when they assume the horizontal position. They speak of severe pain in the back, the pain extending down the thighs. Their pupils are usually dilated, and not very responsive to the stimulus of light. They complain of supra-orbital headache, of a feeling of giddiness, and a sensation of cobwebs floating before their eyes. The eyes have diminished lustre; and beneath the orbits the skin presents a darkened hue. They nearly all complain of great debility, and it is manifest that there is existing a mental as well as a physical hebetude, as betokened by the slowness with which questions are answered, and the statuesque manner of the patient; they frequently, after the examination of the pulse at the wrist, allow the arm to remain flexed for a short time in a semi-cataleptic condition. Leucorrhœa exists in nearly all the cases.

"Further inquiry being prosecuted, I found that those cases which presented the most marked features of disturbed health, were in the habit of working the machine sent out by one manufacturing house, and that the machines were so constructed that the motion was imparted by a treadle worked by the alternate up and down movement of the legs, and were heavy in their construction, being adapted for coarse work. The symptoms, which were thought to be associated with machine-working in general, were not observed among those who used machines of a lighter structure, which were worked by the flexion and extension of both feet simultaneously. I found, however, that the first kind of machine was the one in more frequent use among those who employed machinist labour, and that, consequently, a far larger number, who used the former, fell under my observation.

"While prosecuting inquiries, and endeavouring to ascertain the cause of the frequent association of the before-mentioned symptoms with sewing-machine work, I was struck with the similarity of some of the effects presented to those which my observations at Earlswood had taught me to connect with habits of masturbation. Aided by this suggestion, I was not long in discovering that the series of symptoms met with among machinists was not due to machine labour *per se*, but to immoral habits, which had been induced by the erethism which the movement of the legs evoked. In several cases the patients admitted the fact, and they recovered health on discontinuing the machine-work, using cold affusion, resorting to out-door exercise, and taking bromide of potassium, with salts of iron.

"In three cases the patients were so convinced of the disturbing influence of machine-labour on their health, that they resolved on adopting the work of domestic servants, and on not returning to an employment

which they felt would tend to a weakened power of will, and injury to health and morals as a sequence. They had sufficient firmness to abstain from practices which they were assured were the cause of their illness, but they were afraid to rely on their own power against the abnormal erethism which machine-labour induced.

"It will be gathered from what has been adduced that, if machines are employed, those should be selected where the motor power is effected in a manner not liable to produce local hyperæmia.

"It is not my purpose to discuss the plan which has been proposed of interfering surgically with the integrity of the female organs. Only one case has come under my observation where operative measures had been employed, and the result in that case was not such as lead me to expect much physical or moral good from resort thereto.

"In the majority of cases where the mental power has not been shattered, physical and moral treatment is of avail. In some cases, the sudden awakening to the fact that the existence of the practice can be discovered by others, calls to their aid a resolution which breaks the chains of habit, and effects a complete cure."

SECT. II.—SPECIAL QUESTIONS IN MEDICINE.

(A) NERVOUS SYSTEM.

ART. 22.—*Case of Aphasia.*

By CHARLES R. FRANCIS, M.D., late Officiating First Physician,
Medical College Hospital, Calcutta.

(*The Indian Annals of Medical Science*, January, 1867.)

The following case of aphasia possesses a peculiar interest, as being uncomplicated with paralysis, or any possible source of error in diagnosis; and as pointing, apparently, to an origin which, Dr. Francis believes, has not yet been assigned for it—viz., malaria.

"Mrs. Y., an East Indian, aged twenty-four, was admitted into the Medical College Hospital on the 4th November, 1866, perfectly speechless. Her general health, it was stated, was excellent; and she looked fairly well, though somewhat unnaturally sallow perhaps: the tongue had a bilious stain upon it, towards the base, and there was diarrhoea. She had not been brought to the hospital on account of this, however, but to have her speech restored. She was perfectly intelligent, and quite understood all that was said to her. This was evident by the expression of her face, and by her gestures. But she had lost, to a great extent, the memory of words, or if not the memory, the co-ordinating power necessary to express them. Thus, she knew well enough what a *spoon* was when it was shown to her, but she could not write the word on paper, for she could not apparently recollect it. I held a spoon before her, and asked if it was a knife? She laughed, and shook her head. Was it a fork? again a negative shake of the head. What is it, then? What is it used for? She explained its use by a gesture,

making a movement as if she were taking something up with it from a plate, and then put it to her mouth. It was quite evident that she knew it was a spoon. But when a pencil and a sheet of note-paper were put into her hand, and she was requested to write the name down, she could not at once do so. She *prepared* to write it, but the preparations were so slow, that I was convinced she felt unequal to the task. She would look at the spoon attentively for a moment or so, and then suddenly bring her pencil to bear upon the paper. But she formed no letter, and again looked at the spoon, with no better result. At last, after a long contemplation, she began briskly to write the word, which it seemed had dawned upon her; still she could not get beyond S. Eventually, after further desperate attempts to express the rest of the word, she succeeded, and very hurriedly wrote down after the S spoon. She hurried over it, fearful apparently of again forgetting it.

"It was the same with bread, butter, and pork; but when a glass tumbler was held up before her, she immediately wrote glass. (The single word glass, with the natives of India, is intended to express a tumbler made of glass, so that the usual word was given in this instance.) When asked to spell her own name, she wrote it at once, without hesitation, Margaret; but, when pressed to write the surname, she could not. That she had apparently *quite* forgotten. When she recovered her speech, she said how much she had been annoyed at her inability to write the proper words. Her behaviour in the hospital was very becoming. She would sit working the greater part of the day, and would occasionally hold rational conversations with others, though always by gestures.

"During the attack, which lasted for seven days, it was suggested that she might have had a quarrel with her husband (who, by the way, is a deaf mute), and that she had feigned speechlessness. But this could not be ascertained, nor did there appear any *motive* whatever for her simulating loss of speech, to say nothing of the improbability of a patient of this description being able to counterfeit an aphasic condition. Hysteria was also suggested as a cause, and it was proposed to galvanize her, which was done at one of my morning visits, but without any effect. In the evening of the same day she suddenly began to retch; and, after one or two attempts to vomit, *called out* to the nurse. On the following morning I held a conversation with her in English and Hindustani, and one of the students conversed with her in Bengali. She was quite herself again; and all trace of the aphasia had left her. She remained perfectly well for ten days, and then had an attack of quotidian intermittent fever, with severe headache across the temples, which remained for some time after the fever had left her.

"*History.*—The present attack was associated with malarious fever. She had been sleeping two nights before her admission into hospital on the roof of the house on which she lived, and had woke up feverish and *speechless*. This is her *third* attack. The former occurred about the same time in the year—viz., October. She had one in October, 1864, and one in the same month in 1865. On each of these occasions she remained speechless for more than *twenty* days, and recovered, as she has done now, spontaneously. In both her former attacks she was under native treatment. Does not know whether there was then any *amnesia*. Her power of giving expression to her ideas was not tested."

Upon the above case, which resembles the first five cases recorded in Dr. Bazire's translation of Trousseau's *Clinical Medicine*, Part I. pages 218 to 222, Dr. Francis remarks that the history of each of the attacks would appear to point to malaria as a cause; and it is not improbable, he thinks, that more extended observation will show that there may be malarious aphasia, as there is malarious epilepsy.

ART. 23.—*The Treatment of Epilepsy.*

By JOHN CHAPMAN, M.D., M.R.C.P.

(*Medical Times and Gazette*, April 27, 1867.)

At a meeting of the Medical Society of London, on March 18th, Dr. Chapman read a paper entitled "The Treatment of Epilepsy: Principles and Practice." After adverting to the physiological discoveries of Marshall Hall, Bernard, Brown-Séquard, and others, by aid of which the true pathology of convulsive affections has been to a great extent developed, and showing, as has been stated by Dr. Brown-Séquard, that "epilepsy seems to consist in an increased reflex excitability of the cerebro-spinal axis, and in a loss of the control that in normal conditions the will possesses over the reflex faculty," he observed that the only rational and scientific treatment of the disease must consist (1) in discovering and removing all causes of eccentric irritation, and (2) in exerting a sedative influence on the nervous centres primarily implicated, either by direct action on those parts, or indirectly on the principles of derivation. He pointed out how the pathology of epilepsy just mentioned is totally at variance with the theory of muscular contraction, and the pathological doctrines based upon it, put forward by Dr. Bland Radeliffe, who teaches that convulsive and spasmodic affections generally are consequences and symptoms of a deficiency of nervous energy in the nervous centres presiding over the muscular system, and that therefore the most successful treatment of those affections consists in strengthening the nervous system by every possible means. Dr. Chapman described the effects of applying heat and cold over the nervous centres by means of spine bags, and showed that those effects were diametrically opposite in character to what they ought to be, if Dr. Bland Radeliffe's hypothesis were correct. For example, if ice be applied along the spine, it is fairly presumable that, should it act upon the nervous centres at all, it would exert upon them a sedative influence. Now, assuming Dr. Radeliffe's theory to be true, such an influence, by lessening the domination of the nervous over the muscular system, would facilitate muscular contraction, and predispose the muscles to assume a spasmodic or convulsive condition; whereas, as a matter of fact, ice applied along the spine, so far from producing any such result, actually arrests spasms or convulsions if already present. Dr. Chapman stated, moreover, that heat, on the contrary, if applied along the spine, is actually conducive to spasmodic action, and mentioned several cases in which the involuntary muscles of the vascular system are made to contract by this method. Dr. Chapman expressed

his concurrence in the opinion entertained by most physicians having any considerable experience in the treatment of convulsive affections, that, of all drugs used for the purpose, bromide of potassium is by far the most efficacious. He cited evidence to prove that its action on the nervous system is that of a powerful sedative, and especially that, as demonstrated by Dr. Hammond, of New York, it diminishes the amount of blood in the brain. He argued, therefore, that inasmuch as Dr. Bland Radcliffe, when treating convulsive affections, places his chief reliance on bromide of potassium, he practically abandons his peculiar theory of muscular motion, and the whole pathological structure built upon it, and thus virtually recognises the truth of the opposite doctrine. After urging certain objections to the continued use of bromide of potassium in doses sufficiently large to exert a beneficial influence in cases of epilepsy, Dr. Chapman showed the peculiar advantages of acting especially on the nervous centres chiefly implicated in that disease, and stated that this could be done more effectually by use of the spinal ice-bag than by any other means. Perhaps the most interesting part of this paper was that in which he explained how the numerous affections frequently associated with epilepsy, and contributing to usher in the attacks, may be treated successfully by his peculiar method. He maintained that cerebral anæmia, cerebral plethora, pulmonary congestion, nausea, vomiting, habitual constipation, functional disorders of the uterus, as well as of the male genito-urinary organs, and coldness of the feet—that very frequent concomitant of epilepsy—may all be treated successfully by modifying the temperature of some part of the spinal region.

ART. 24.—*Epilepsy.*

By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College.

(*Principles and Practice of Medicine*, 2nd edition.)

Under the head of epilepsy Dr. Flint says of the various remedies which have been considered as curative, those, within late years and at the present time, in most repute are the following:—the nitrate and other preparations of silver, preparations of zinc, digitalis, opium, the narcotic extracts, more especially belladonna, and the bromide of potassium. The nitrate of silver has long been a remedy for epilepsy, and its occasional efficacy rests on abundant testimony: commencing with a fraction of a grain three times daily, the dose may be gradually increased to three or four grains. To avoid permanent blueness, an effect of the prolonged use of this remedy, it should be suspended for a time, after having been continued for two or three months. The oxide of silver is less likely to produce discoloration of the skin, but is less powerful as a remedy. The chloride of silver is preferred by Dr. Perry, of Philadelphia. Of the preparations of zinc, the oxide has been found curative by different observers. The mode of administration advised by Herpin, who claims that, in his hands, a cure was effected by

this remedy in 26 of 42 cases—is to give at first from six to eight grains daily in divided doses an hour after each meal; the quantity given daily is to be increased by two grains each week, until it reaches forty-five grains, this quantity to be continued for three months. The remedy is not to be discontinued after the cessation of the fits. Babington prefers the sulphate of zinc, and has carried the quantity given *per diem* for several weeks in succession to thirty-six grains, without producing nausea. The phosphate of zinc is recommended by Dr. Barnes. The valerianate of zinc is an eligible preparation. The ammoniated copper has been found curative. Of twelve cases treated exclusively with this remedy by Herpin, four were cured; the dose is half a grain, increased gradually to four or five grains. The sulphate of copper has also been employed successfully. The efficacy of digitalis is attested by Sharkey, Crampton, Cormack, and Corrigan. The infusion is the preparation to be preferred; the quantity given daily is to be increased to the amount which is tolerated, and continued steadily for several months. Opium is among the remedies recommended as sometimes curative, but the evils of the habitual use of this drug are to be considered. Trousseau is an ardent advocate of belladonna, as capable of effecting a cure in a certain proportion of cases, and frequently ameliorating the condition of epileptics when it fails to prove curative. His mode of administration is to begin with a small dose of the extract (gr. 1—5) once daily, which is to be continued for a month without increase; at the end of each month the dose is to be doubled, until as large a dose as can be conveniently borne is reached. The tolerance of the remedy differs in different cases. After the disease is perceptibly modified, the doses are diminished in the same manner as they were increased. Atropine may be employed in lieu of belladonna, the mode of administration being similar. With the use of belladonna or atropine, Trousseau frequently combines the employment of nitrate of silver, copper, and the lactate of zinc.

The bromide of potassium has recently come into vogue as a remedy in epilepsy. Since the first edition of Dr. Flint's work was written, he has known of several cases of epilepsy in which this remedy has presented the recurrence of the paroxysms. His colleague, Prof. Barker, has found it successful in preventing the paroxysms in a number of cases. He is accustomed to prescribe it in doses of thirty grains three times daily, and to insist upon its continuance for a long period.

ART. 25.—*Epileptiform Neuralgia: Epileptic Seizures: Improvement under the Influence of large Doses of Morphia.*

Under the care of Dr. RAMSKILL.

(*British Medical Journal*, January 5, 1867.)

The following interesting case of that fortunately rare form of neuralgia which has been termed epileptiform by Trousseau, from its analogy to epilepsy in the suddenness and violence of the paroxysms, was recently under the care of Dr. Ramskill.

This complaint derives a painful interest from the fact that, as yet, no cure has been found for it; and, after his extensive and prolonged experience, Trousseau makes the sad avowal that he has never known a single instance of the disease get perfectly well. If it cannot be radically cured, however, it can, at least, be alleviated; and opium is the great remedy to oppose to it. But, in order to do good, it should be used *largâ manu*. The quantity of this drug taken by some of Trousseau's patients is really marvellous. Thus, he tells us that an old lady from Antwerp took as much as one drachm of sulphate of morphia in one day, and that she consumed in one year 48 $\frac{1}{2}$ worth of crude opium. There is no doubt that there are certain conditions of the organism which apparently resist the influence of this potent drug in a most extraordinary manner, and are yet wonderfully benefited by it. In such cases we should be guided in its administration by this maxim of the great Sydenham: "*Remedii dosis et repetendi vices cum symptomatis magnitudine omnino sunt conferendæ.*"

Subjoined is the history of this case:—

C. Y., aged thirty, married, the mother of three children, the youngest of whom is nine years old, came under Dr. Ramskill's care, at the National Hospital for the Paralysed and Epileptic, at the end of August, 1866. She is thin, of medium size, with sandy hair, and the expression of her face is indicative of intense suffering. Her previous health has been bad, on the whole, for the last eight years, but from no special complaint; she has had no miscarriages, and there is no history of syphilis; she has never suffered from cutaneous eruptions or from ulcerated sore-throat, although she talks of having had an abscess in her throat. Her husband is healthy. Her present complaint dates from the second week in January, 1866. She ascribes it to grief at losing her three sisters, at very short intervals of one another; and especially at the shock she had on seeing one of them die of puerperal convulsions. There is no history of epilepsy in her family. Her present complaint set in suddenly, with violent excruciating pain at the top of her head, over the area of distribution of the ophthalmic branch of the fifth nerve. This pain came on in paroxysms at all times, and made her scream out from its violence, and throw herself down on the floor if she happened to be standing at the time. She was not convulsed, and did not lose her senses for the first month or six weeks. At that time, a surgeon removed the stump of her left upper canine tooth, in hopes that the cause of the neuralgia would be thus got rid of. But no relief was obtained; and shortly afterwards she became subject to convulsive seizures, during which she struggled violently, ground her teeth, but did not bite her tongue, and was totally unconscious. She had two or three such attacks in the course of the day, and nearly every day, every one of them supervening on a series of sharp paroxysms of pain. In March, one of her upper incisor teeth was removed, as the pain in her head was brought on when it was touched, but no relief followed the operation. Up to the time when she came to the Hospital for the Paralysed and Epileptic, she was never free from pain night or day. In the intervals between the paroxysms, she had a feeling of weight or pressure in the head.

She was an out-patient at first; but was admitted as an in-patient about the middle of September. The top of her head, where she com-

plained of pain, was exquisitely tender, and the least touch brought on a most fearful paroxysm of pain. There was, however, no swelling to be detected at that spot. There was great tenderness on pressure over both tibiæ also, and along the ulnar portion of the forearms; but nowhere could any thickening of the periosteum or any node be detected. Her intellect was unaffected; all her senses were perfect; she complained of no diminution of power in any of her limbs; and she was not troubled with sickness or nausea, or with giddiness. Her bowels were regular, and micturition natural.

Suspecting that syphilis might be at the bottom of the case, Dr. Ramskill determined on trying the effects of a full course of iodide of potassium, and accordingly gave the patient ten grains of the drug three times a day. At the end of a fortnight, no improvement having been obtained, the dose was increased to fifteen grains three times a day; but again no abatement in the violence of the pain was procured. On the contrary, the epileptic seizures increased in frequency, and came on in batches. Bromide of potassium, in scruple doses, was then substituted for the iodide, and persevered in for a fortnight; but this drug, which possesses such a marked influence in controlling epileptic seizures in general, failed in this case to relieve the pain, and therefore to get rid of the seizures apparently depending on the violence of the cranial pain.

Dr. Ramskill then thought of the treatment by large and gradually increasing doses of morphia recommended by Trousseau in cases of epileptiform neuralgia, to which the present seemed to belong, and began with half-grain doses of the drug three times a day. The quantity was increased after a few days to three-quarters of a grain and then to one grain three times a day. From the third day after this treatment was begun, some improvement followed; and after a week, the patient, who had until then been unable to eat solid food because any attempt at mastication would bring on a paroxysm of pain, asked for meat. The convulsive seizures became less violent and less frequent, and she has been now free from them for the last ten days. The morphia treatment was begun on December 11th, and the patient is at present taking one grain of the alkaloid four times a day. Dr. Ramskill is determined to push it, and to gradually increase the dose, in proportion as the patient gets accustomed to the medicine.

The poor woman is loud in her thanks for the relief she has at last obtained after so many months of intense suffering. Unfortunately, as Trousseau himself declares, this treatment is merely palliative, and the neuralgia disappears for a variable period only, and again returns.

ART. 26.—*Report of a Case of Paralytic Insanity
successfully treated.*

By WILLIAM DOMETT STONE, M.D., F.R.C.S. Eng. (Exam.)

(*The Lancet*, February 2nd, 1867.)

The following highly instructive and most interesting case is put on record by Dr. Domett Stone:—

"The case here recorded is one of general paralysis with insanity, which came under my observation some time since, when medical superintendent of a lunatic asylum. I use the term 'general paralysis' in preference to that of 'general paresis;' concurring with Dr. Blandford that as the meaning of the word *παρημι* does not accord with the symptoms of the disease more than that of the verb *παρᾶλω*, it is better to retain the latter until we succeed in coining a word which will describe the disease accurately.

"It has been asserted that this form of insanity is the most deadly disorder that attacks man. Only nine cases of recovery are, I believe, recorded; and it appears extremely doubtful whether these could be legitimately classed as general paralytics; for Dr. Blandford, in a lecture recently delivered at St. George's Hospital, remarked—'So fatal is this disease, that no one as yet has recorded a case of recovery.' Esquirol—perhaps the highest authority on mental diseases—pronounced it to be incurable, which opinion has been endorsed by most psychologists of the present day. Such being the case, I submit that it is the duty of every man to publish the history and treatment of any case he may have the good fortune to see happily followed by a successful issue. This must be my explanation and apology, if there need be any, for placing the following case *in extenso* before the profession. Subjoined are the notes which were taken immediately after the patient's admission and during his stay in the asylum.

"F. G., single, aged twenty-six, of medium height and build, sallow complexion, and nervous temperament. Supposed cause of insanity stated on the order of admission, 'unknown.' It appeared that on the twelfth day prior to his being brought to the asylum he had a fit, probably an epileptic seizure, whilst walking in the street, and fell; when picked up he was found to be insensible, and was thereupon conveyed to one of the metropolitan hospitals, where, after the lapse of a short time, he revived, and left. On his return to his lodgings his landlady noticed that 'he did not appear himself;' and on the following day, 'owing to his strange conduct and peculiar manner,' his landlady thought 'he must be going out of his mind.' Her suspicions were still more aroused on the third day, when she saw him washing a dozen or more pairs of perfectly new kid gloves, and when she heard that he had been seen to give money promiscuously to persons in the streets, and had 'by pressing it upon people' got rid of 60*l.* within a very short time. His general demeanour struck her as being very strange. His friends were now communicated with, and for a few days an attendant upon the insane was placed over him.

"*Appearance on admission into the asylum.*—Restless; talkative; incoherent in his language; in exuberant spirits; very quick in his movements; peculiar gait; tremulous tongue; expression of countenance pinched; slight impediment in his speech; has some difficulty in articulating; speech resembles that of a drunken man. Is labouring under delusions of a most exaggerated nature, especially with regard to money matters: asserts that he is worth 1,000,000*l.*, and that in the course of a few days he firmly believes he shall make 5,000,000*l.* by collecting all the tobacco that is growing in the Green-park, and by selling it at an immense profit. Says that he expects to realize a still larger fortune

by introducing to the Austrian military service a uniform made invulnerable by chestnuts. Positively affirms his name to be that of one of the most popular vocalists of the day: says that he is engaged to sing at St. James's and St. Martin's Halls, and at the Oxford in *Faust* and *May Queen*; and adds that his voice brings him in 5000*l.* a day. Complains of slight headache and giddiness; pulse quick and weak, about 85 in the minute; tongue furred; bowels constipated; skin dry; appetite good. Ordered, for the remainder of the day, a light diet; to take before going to bed a tepid bath and a brisk purge — blue-pill and colocynth.

"Second day.—Bowels opened this morning shortly after taking an ounce and a half of senna mixture. Did not sleep well. Appears drowsy, though at times sings, plays on the piano, and shouts. Restless and 'snappish' to all about him with the exception of myself, to whom he professes great friendship. Occasionally makes use of obscene language. Has during the day collected a great number of stones, and picked a quantity of grass. Says the former are agates, diamonds, and other precious stones; and the latter tobacco. And adds, if I will permit him to keep them in his bed-room he will make my fortune. Permission granted on the understanding that he keeps them in a box, which I have promised him for that purpose.

"Third day.—Slept better last night; not so drowsy as he was yesterday. Has been very restless all day, running in and out of the house, occasionally singing, playing on the piano, shouting, jumping, playing billiards, reading aloud short paragraphs from the newspapers, collecting more stones and grass. Makes very fair meals. Ordered five minims of tincture of sesquichloride of iron to an ounce of water twice a day.

"Seventh day.—Remains in nearly the same state. Expression of countenance appears haggard; has a peculiar glare with his eyes; the expression is that so often depicted in the countenance of the masturbator. As it has occurred to me that the patient might be given to this baneful and pernicious habit, have given strict injunctions to his attendant to watch him narrowly.

"Thirteenth day.—Mental state and bodily condition about the same. Informed by the attendant this morning that my patient had been seen on the previous night masturbating. I accordingly spoke to him this morning on the subject; pointed out to him the usual sequence, and frankly told him that he had, no doubt, been accustomed to practise this habit for some time; that I firmly believed his present condition could be traced to it; told him that in my opinion his friends were quite right when they told him he was mad (to which fact I may mention he had several times alluded); that if he gave up the habit he might probably recover, but that if he persisted in it he would soon die. Surprising to relate, he listened most attentively to my admonition, and appeared impressed with what I had said, but denied that he had ever been guilty of the act. Imagining that I had found some clue to the cause of this 'hopeless form of disease,' I determined on giving this patient all the attention I could bestow. I had him narrowly watched, kept him as much as possible in my presence, took him out frequently, and tried every means at my command to keep his mind occupied, and thus divert it from the path it had taken. Ordered the patient to take extra meat diet; to suck two

eggs every morning, which I had been informed by Dr. Henry Stevens, late of St. Luke's Hospital, he had found beneficial in many cases; and gave the following medicine:—Syrup of hyperphosphate of iron, one drachm, with cod-liver oil, one drachm, twice a day—viz., after breakfast and dinner; and a pill of extract of nux vomica, quarter of a grain; sulphate of zinc and phosphate of iron, of each one grain, every night.

“Sixteenth day.—Improving; looks decidedly better; sleeps better; has ceased to collect rubbish and stones; is not so restless. Finding the patient very communicative this morning, I thought it a favourable opportunity for again broaching the matter of onanism; at first he did not appear disposed to give me a hearing, and expressed a wish to go for a walk. On my promising him that he should go out provided he gave me ten minutes' attention, he reluctantly consented. In the course of my remarks I told him that I knew for a fact that he had recently masturbated. Upon hearing this, which I asserted with some stress, he admitted his guilt, and added, ‘Who has not?’ I pointed out to him again and again the result of such a practice; admitted that it was perhaps difficult to resist the temptation, and assured him that as his general health improved so his moral courage would increase, and if he would only fight against the enemy he would ultimately overcome it. It was evident my words had made an impression upon him, and from that hour I cherished the hope that he would give up the habit and probably recover.

“Eighteenth day.—A marked improvement in his general health and mental state. Has not so many delusions; the stone and tobacco fallacies no longer exist. Tongue clean; bowels regular; skin moist; a good full pulse; appetite hearty. To go on with the medicine.

“Twenty-second day.—Continues to improve in every respect; is at times ‘peevish,’ and requests to know why he is kept in an asylum and not allowed to go home. Goes out frequently. Objects to take the cod-liver oil, asserting that it causes diarrhoea; it is therefore omitted.

“Thirtieth day.—Went to church yesterday: behaved well throughout the service.

“Thirty-fourth day.—Is increasing in weight; general health good; mental state improving; delusions are disappearing. He now laughs at some, and says he can hardly believe that he has had those that are imputed to him. Still persists that he has ‘hit upon a plan’—the chestnut scheme—by which a uniform can be made invulnerable, but says it is not *very clear*. Maintains that his voice is magnificent, and firmly believes that when he leaves the asylum he will be overwhelmed with engagements to sing in public, which he shall most undoubtedly do.

“Fortieth day.—Has promised to return to the cod-liver oil; the pills to be taken every night; to continue the iron.

“Forty-sixth day.—Occasionally writes letters, but of an incoherent nature.

“Fiftieth day.—The chestnut delusion he now laughs at. Still asserts that his voice is the finest in the kingdom, and that it will bring him in thousands a year.

“Fifty-third day.—Persists that he has a fine voice (which he certainly has), but adds he has no intention of singing in public—pooh poohs the idea of making money by it.

"Fifty-sixth day.—Has been frequently visited by friends; pronounced by some to be well, but by others to be still 'rather peculiar.'

"Fifty-ninth day.—It is now impossible to detect any symptoms of aberration of intellect. Writes frequently to his friends, and expresses his thanks for the kindness he has received during the time he has been in the asylum. Promises to remain 'as a guest' for a few days.

"Sixty-first day.—Pronounced 'well' by his most intimate friends, who have known him for years; and some of whom, I may add, are members of the medical profession, whose opinions therefore should have great weight.

"Sixty-third day.—Discharged cured.

"That excessive mental work with insufficient nourishment, and sexual excess, either separately or combined, will cause paralytic insanity is universally admitted. That the subject of this case had overtaxed his brain, and had always been neglectful as regards his diet, was affirmed by his friends; that he was addicted to self-abuse is an indisputable fact. We may therefore reasonably conclude, I think, that the co-existence of these gave rise to F. G.'s insanity; of this there exists no doubt in my mind. Is it surprising, then, that abstinence from mental work, with nutritious diet, constant exercise, varied amusements, and the diversion of the patient's mind from some subjects and the drawing his attention to others, together with medical treatment, should have had such a salutary effect, and have finally most happily contributed to the patient's restoration to health?"

ART. 27.—*On the Temperature of Paralysed Parts.*

By M. H. FOLET.

(*Gazette Hebdomadaire*, No. 12, 1867.)

M. Folet has drawn the following conclusions from a great number of observations which are given in detail in a long and elaborate essay upon the temperature of paralysed parts:—

(1.) In the great majority of cases hemiplegia is from its commencement accompanied by an elevation of the temperature of the paralysed side; calorific equilibrium persists very rarely, and diminution of temperature is scarcely ever met with. MM. Prévost and Cottard have mentioned one instance, but in this case the thermometer was applied to the hand.

(2.) The usual elevation of the mercury is easily made out; it may vary between $\frac{3}{10}$ ths and $\frac{6}{10}$ ths of a degree, but seldom exceeds more than one degree. M. Folet has not observed it to reach so far, even in the axilla. M. Charcot has asserted that, in the comparative temperature of the hands, there may be differences of 3, 4, and even 9 degrees. But the hands do not present so many guarantees for preciseness in thermometrical observations as the axillæ, for they are so easily cooled by external influences, that even in their normal state a difference in tem-

perature varying from $\frac{1}{2}$ to 1 degree may sometimes be observed between them.

(3.) The presence or absence of muscular rigidity has not been observed to have had any marked influence upon the thermometer.

(4.) Various causes may for a time reduce the thermometric differences, and even reverse them. In a case where phlebotomy was performed upon a paralysed arm the temperature was lowered; but on the following day it was the sound arm that was found to be cooler than its fellow.

(5.) The difference of temperature may be present in all cases of hemiplegia symptomatic of the various cerebral lesions, as apoplexy, softening, &c. In whatever part of the encephalon the lesion was situated increased temperature of the opposite side was always noticed by M. Folet, but a sufficient number of cases have not yet been observed to enable him to decide whether the seat of the lesion influences in any way the amount of the difference.

(6.) The cure of the paralysis restores the thermometric equilibrium. When the paralysis persists, the period of duration of the elevation varies extremely in different cases. Whilst in certain patients, especially in those who have not been attacked suddenly with hemiplegia, it may not continue longer than two months; it may in other individuals persist for many years. However, in cases of hemiplegia of long standing, a time arrives sooner or later when the thermometric equilibrium is restored; this occurs, M. Folet thinks, at the commencement of consecutive atrophy.

(7.) Well-marked paralytic atrophy is accompanied by a variable depression of the temperature.

(8.) When after long-continued hemiplegia, connected with persistent excess of heat on the affected side, the other half of the body is paralysed in its turn, the thermometric equilibrium is either re-established, or an increase of temperature may be manifested on the side recently paralysed.

(9.) With regard to the general temperature of patients attacked by cerebral hemiplegia it has been noticed that, as a rule, it is not increased, and does not exceed an average of 37° C., except in the last hours of life, when it may reach $38^{\circ}\cdot4$ C., and even $39^{\circ}\cdot4$ C. This extreme elevation of temperature in subjects who are advanced in age is an unfavourable prognostic.

ART. 28.—*Chorea Treated by Richardson's Apparatus.*

(*The Lancet*, March 16, 1867.)

An interesting case in which chorea was successfully treated by freezing the skin over the spinal cord has lately been recorded in the *Gazette Hebdomadaire*, and tends to some extent to support the ice theory of Dr. Chapman. A little girl, of about seven years old, was attacked with chorea, and presented herself to Dr. Lubelski, who, having tried in vain the usual tonic and antispasmodic remedies, determined to produce "anæsthesia of the spinal cord" by means of ether spray. The instru-

ment used was the variety of Richardson's apparatus employed by dentists, and which has a double nozzle. It was applied to both sides of the spinal cord, and the ether spray was forced upon the surface for about three or four minutes, the operation being twice repeated. The result was that all the abnormal movements ceased, and the natural powers of motion were restored.

ART. 29.—*On Paralysis following Dysentery.*

By M. DELIOUX DE SAVIGNAC.

(*Gazette des Hôpitaux*, No. 43, 1867.)

M. Delieux de Savignac read before the Imperial Academy of Medicine a memoir on the forms of paralysis that accompany and follow dysentery and dry colic, and on their treatment by *nux vomica*.

After referring to the recent observations by which attention has been directed to the paralysis of motility accompanying or following various acute diseases, M. Delieux de Savignac pointed out the frequent connexion of paralysis with dry colic and dysentery, many cases of which he has observed. According to the author's opinion, this paralysis is caused by an extension of a lesion of the spinal cord which, in these two diseases, acts upon the intestines; and by this intestinal paralysis he explains the principal phenomena of dysentery and the dry or nervous endemic colic of warm climates, between which two affections he considers many connexions exist, the paralysis, however, does not act in precisely the same way in both cases.

M. Delieux de Savignac refers to a case in which softening of the cord at the cervical and lumbar swellings was found at the autopsy of an individual who had suffered from chronic dysentery, complicated with a progressive paralysis which finally involved the muscles of the thorax, and caused death by suffocation. He thinks that this case favours very much his opinion concerning a real lesion of the cord in dysentery, especially when this disease is connected with paralysis of the limbs. Two other cases are also reported, in which paralysis, similar in nature and rapidly fatal, followed attacks of dry colic in tropical regions.

For cases of this kind, M. Delieux de Savignac recommends the use, both internal and external, of *nux vomica*. This agent has been useful not only in the paralysis of external parts, but also for the treatment of the intestinal lesions of chronic dysentery, in which it has often served to improve the condition of the evacuations.

The author, after comparative trials of the two therapeutic agents, prefers *nux vomica* to electricity in the treatment of the paralysis in question; he attributes the superior efficacy of the drug to its special influence upon the spinal cord, and to the duration of its effects.

If *nux vomica* and electricity both fail, the author recommends the use of sulphurous thermal waters, which should be directed with much caution in cases of dysenteric paralysis for fear of increasing the severity

of the original malady, or causing a relapse. Where paralysis follows dry, nervous, or lead colic, he especially recommends the springs of Barèges, which, in his practice, have frequently exerted a happy and remarkable influence upon cases of this kind.

ART. 30.—*On Impaired Motility after Diphtheria.*

By Dr. BRENNER, Petersburg.

(*Petersb. Med. Zeitschrift*, x. 4, 1866; *Schmidt's Jahrbücher*, No. 1, 1867.)

Brenner distinguishes three forms of this affection:—1st. Simple ataxie. 2. Paralytic ataxie. 3. True paralysis.

1. *Simple ataxie* occurs when a voluntary muscle loses either the normal counterbalancing on the part of its antagonist, or the normal assistance of its associated muscles. This may depend upon disease of the centre of co-ordination, or upon any impediment in the paths along which the impulse of co-ordination is carried. The preponderance gained by a single muscle in this manner gives to it so much power that it produces under the influence of the will and of Faradisation abnormally excessive movements of the limbs. There may be also an elevated irritability to electrical stimuli. In cases of this kind the symptoms are like those of *tabes dorsalis*.

2. *Paralytic ataxie* consists in partial paralysis, with a normal condition of a few muscles, or in irregular paralysis of all the muscles of a limb. Those muscles which are unaffected or but slightly impaired in function preponderate over those which are extensively or completely paralysed. This preponderance will, however, diminish in course of time, as soon as all the muscles are involved in the progress of the paralysis. The paralysed muscles are functionally impaired.

3. *True paralysis*.—Here all the signs of ataxie are absent. The paralysis varies in degree.

Dr. Brenner gives examples of these three forms of disease. His treatment consisted essentially in Faradisation and galvanism.

The prognosis of diphtheritic paralysis is not so favourable as it is generally considered. Many cases get well when treated by tonics, but many do not, and are quite incurable, except by electrical treatment. Even the cure of paralysis of the palate is accelerated by electricity. It is necessary that all cases of diphtheritic paralysis should at once be treated by this agency. In paralysis of the palate, artificial deglutition should be produced by exciting the hypoglossal nerve. Nasal speech continues longer than impaired deglutition.

The remaining paralyses always require, after the reaction from the electric and galvanic currents, a treatment varied with such efficacious alterations as may be indicated from time to time.

(B) RESPIRATORY SYSTEM.

ART. 31.—*Chronic Bronchitis.*

By E. HEADLAM GREENHOW, M.D., Fellow of the Royal College of Physicians, Assistant-Physician to the Middlesex Hospital, &c.

(*The Lancet*, February 16, 23, March 9, and April 20, 1867.)

In speaking of this exceedingly common, but most important disease, Dr. Greenhow said, in a clinical lecture delivered at the Middlesex Hospital—

“Bronchitis is essentially an inflammatory affection of the pulmonary mucous membrane, attended by more or less of flux from the inflamed surface. Although it is always manifested by similar symptoms, and is therefore pathologically known by one name, it is by no means of uniform character in different persons, but varies much in extent, intensity, and duration. It may be limited to the larger branches of the bronchial tree, or it may extend to the capillary tubes. It may be a more or less severe acute attack, running a comparatively rapid course, and ending in perfect recovery; or it may take a chronic form, and its duration be indefinitely protracted. In its severer forms it is a very fatal disease, especially to the young, the delicate, and the aged. In its milder forms it is attended by no immediate danger to life; but as a bronchial membrane which has once been inflamed is, for a longer or a shorter time afterwards, very prone to take on a recurrence of inflammation from comparatively slight causes, even a mild attack of bronchitis, unless judiciously managed and carefully watched, may, especially in persons whose health is otherwise not perfect, become the starting-point of a chronic bronchial affection, and may thus lay the foundation for life-long delicacy or for various secondary ailments.

“Although the general symptoms of bronchitis are always similar, inasmuch as it is always the same structure which is the seat of irritation, this irritation may be produced by very various causes, some proceeding from without and others from within the organism; some accidental, and others constitutional. One cause which I have on other occasions shown to produce an immense amount of bronchial disease in certain manufacturing districts of this country, is the inhalation of mechanical irritants, such as fine grit, dust, or fluff, by the operatives employed in various industries. Exposure to cold or damp is, however, generally regarded as the most frequent exciting cause of bronchitis. Sometimes such exposure is, in fact, the only cause, as when an attack of bronchitis results from falling into a pond, remaining for some time wet-shod, getting chilled or wet through on a journey; or else from exposure, without proper precautions, to sudden changes of temperature, such as from the hot and dry air of a crowded church, ball-room or theatre to the cold and damp atmosphere out of doors. Nevertheless, there can be no doubt that in many instances such causes only excite the disease when a strong predisposition to it already exists, either from delicacy of the bronchial membrane, consequent on previous attacks, or on long-standing

local irritation from the inhalation of dust or of over-dried air, or else from some constitutional derangement of health. I am, moreover, well assured from long and careful observation that chronic bronchitis is sometimes the direct consequence of some constitutional vice, irrespective of exposure to any adequate external exciting cause. In confirmation of this opinion, I may remind you that bronchitis, although certainly by far most prevalent in the colder season of the year, is by no means peculiar to it, and that it recurs periodically in summer instead of the more usual season of winter, and generally, on such periodical recurrence, is associated with some well-marked constitutional disorder. The relations between chronic bronchitis and various other ailments, local or constitutional, may be those either of cause or of consequence: as when, on the one hand, bronchitis produces some secondary lesion either of lungs or heart, or some more remote sequence, such as disease of liver or kidneys; or as when, on the other hand, bronchitis is itself the secondary result of some constitutional vice, such as gout or syphilis, or of some local affection, such as cardiac or renal disease.

"Bronchitis may thus be either a primary or a secondary affection. Primary, when it is, so to speak, the starting-point of the illness, as in cases where a catarrh contracted from exposure passes into chronic bronchitis, or when bronchial irritation excited by the inhalation of dust develops the disease; secondary, in those cases in which the bronchial affection arises out of some constitutional tendency or some other previously existing ailment, such as any of those I have just named. Again, bronchitis may be associated as a complication with other diseases, such as measles, or whooping-cough, or with other pulmonary affections, such as phthisis or pneumonia. In order to avoid misapprehension, however, I should perhaps add that I have only quoted the above as examples, and by no means as a complete catalogue, of the diseases with which bronchitis is intimately related.

"I have made a careful analysis of all the cases of chronic bronchitis which have come under my care during the last three months, chiefly in the out-patient department of the hospital. Bronchitis being, however, often a mere result of the wearing out of the machine in advanced life, I have excluded from my analysis all those cases which could properly be classed under the head of senile bronchitis. After this deduction, there remain ninety-six cases, of which fifty-five were those of males, and forty-one those of females; sixty-nine of the number being between the ages of twenty and fifty years. The points more particularly attended to in taking the history of the several cases were—

The duration of the disease.

The influence of season on its accessions.

The previous history of the patients as regarded other diseases or exciting causes.

The existence either of a hereditary or an acquired tendency to any form of cachexia.

The actually existing complications.

"I need scarcely say that, in many cases, reliable information on one or more of these points was not to be obtained, but notwithstanding such partial failures, I was enabled, on the whole, to collect sufficient information to serve my present purpose of showing you how largely the

origin of chronic bronchitis may be referred to some constitutional condition, and again, how frequently the first attack of this disease, and therewith the disposition to subsequent attacks, may be traced back to some preceding illness.

"On analysing the cases with reference to the several points which I had kept in view while taking them, I found, in the first place, as regards the duration of the disease, that a very large proportion of our out-patients had already suffered from several, and some from many, attacks previous to the one for which they came under my care during the present season. In twelve cases only was the existing attack the first, or even the second, from which the patients had suffered. In forty-nine of the remaining cases the patients have been subject to attacks of chronic bronchitis for periods varying from five to twenty years. In some instances the disease had commenced in childhood, and had recurred annually up to the time of the patient's coming under observation. In a few cases there was never entire freedom from the disease; in a few others, again, it was said not always to recur annually, but occasionally to miss a year. In some at least of these cases, however, it seems probable that the attacks were milder, rather than altogether absent, in certain years, for, on close inquiry, it appeared that the patients did not regard as an accession of their complaint anything short of an attack sufficiently severe to disable them from following their usual avocations.

"As regards the second point—namely, the influence of season on the development of the periodical accessions of the disease, it was found that winter was exclusively the season of attack or exacerbation in fifty cases; that in a few cases the attacks came on only in spring and autumn; in a few others in summer as well as in winter; and that in about twenty cases the patients could scarcely be regarded as being ever free from their ailment, though it was liable to be aggravated by every undue exposure and every change of season.

"We have now arrived at the points which relate to the previous history of the patients, and to the existence of an hereditary or acquired tendency to any form of cachexia, and these include branches of the investigation not only essential towards elucidating the etiology of the disease, but also practically important, in a degree it is scarcely possible to overrate, with reference to the treatment of every individual case. How, indeed, shall we be able to prescribe for our bronchitic patients to the best advantage, unless we can not only ascertain the existence of bronchial irritation, but can also determine whether this irritation be primary or secondary—whether it be the result of an external cause or of an internal condition? Unfortunately, for one reason or another, it was impossible in a considerable number of cases to obtain any really trustworthy account of the patient's previous history, which was therefore only recorded in sixty-six cases, or rather more than two-thirds of the whole number. In thirty-six, or considerably more than half of these cases, the patients had at some previous time suffered either from gout or rheumatic fever, or from some form of gouty or rheumatic affection; and in three cases I ascertained that the patients had been subjects of psoriasis or eczema, which are frequently the results of a gouty taint in the constitution, and which had probably existed in many more

instances; for, as will be seen, these complaints were present as actual complications of the bronchitic disease in a considerably larger proportion of our cases. Of the other twenty-seven patients, only one had been in perfectly good health previous to the illness for which he came under my care during the present winter. Four dated the commencement of their tendency to bronchitis from an attack of one of the exanthematous diseases; two referred it to a previous definite attack of inflammation of the lungs; five to the inhalation of dust in the course of their industrial occupations; and only five actually traced it to exposure or any of the ordinary causes of taking cold. In the remaining ten cases the patients had long been liable to frequently-recurring attacks of catarrh, cough, or dyspnoea, but were unable to assign any cause for the commencement of their ailments, though it seemed probable that in several the bronchial delicacy had originated in an attack of whooping-cough.

"Just as in many cases we found it impossible to obtain trustworthy reports of the patients' previous state of health, so, in a still larger proportion of cases, we were unable to collect accurate and reliable facts regarding the family history, which was therefore only recorded in fifty-four cases. The only fact under this head to which I intend now specially to direct your attention is the frequency with which other members of our patients' families were found to have habitually suffered from some other form of pulmonary disease, or from gout. In eighteen cases there was a distinct hereditary tendency to phthisis, and in twenty-nine to bronchitis or asthma. In thirteen of these twenty-nine cases some other, often several other, members of the patient's family had also suffered from gout—a fact which is important to be observed, as bearing upon the strong tendency to bronchitis in a person of gouty constitution, which has already been brought out by the analysis of the previous history of sixty-six of our bronchitic patients.

"There remains only the last point—namely, that respecting the ailments actually complicating the bronchial affection in each individual case, while under observation; and here, as the evidence was before us, and careful observation only was needed to ascertain the truth, we have entirely trustworthy facts regarding all the ninety-six cases. The bronchitis was uncomplicated in thirty-nine cases, but in fifty-seven cases, or three-fifths of the whole number, the bronchial affection was associated with some form of gouty ailment, or some cardiac disease, or some other lesion of the lungs, and in some instances two or more of these complications were found in the same patient. In eleven cases gout was present in its regular form, and in five there were arthritic pains and swellings, of the form commonly called rheumatic gout. Psoriasis or eczema was present in eleven, and albuminuria in eight cases. I have already told you that psoriasis and eczema are often of gouty origin—that is to say, that they habitually occur in persons who have either themselves suffered from gout, or in whose family there is a decided gouty taint; and I may now mention that albuminuria is also frequently induced by a gouty state of the system; and, in fact, co-existed with gout, or occurred in gouty constitutions, in several of the eight cases here referred to. It is, therefore, no matter of surprise to find, as I have said, as indeed many of you have had an opportunity of

observing, that cases of bronchitis are often complicated with more than one of these affections at the same time—as, for instance, with gout and psoriasis, or with gout and albuminuria, or even, as in one remarkable case which I shall relate to you, with gout, psoriasis, and albuminuria all together. There were, however, other complications to which I must also refer. In fifteen cases, nine of which showed rheumatic fever in their previous history, the bronchitis was associated with cardiac disease; in nine other cases with emphysema, and in three with phthisis. Bronchitis is, indeed, a frequent attendant on phthisis; but I have excluded from the cases selected for my present purpose all ordinary cases of phthisis, and have only admitted the three cases last mentioned, because in each of them the bronchitis was the predominant ailment, being general, and its symptoms well marked, whereas the phthisis was of limited extent, and its symptoms by no means prominent. You will recollect that we found a distinct history of phthisis in the families of eighteen of our patients, from which it would seem that sometimes, when the family tendency has not been developed in the form of genuine phthisis, bronchitis has taken its place. Of this fact I have seen many examples; but I have also seen some very remarkable cases of the converse, in which a bronchitic parent has had phthisical children, and it will perhaps not be out of place here to mention briefly three instances of this which occur to me, with the full details of which I have become accurately acquainted in the course of private practice. In the first case, both parents lived to upwards of eighty years of age; but the mother had suffered from chronic bronchitis from the age of seventeen, and all the sons of the marriage died of phthisis between the ages of twenty-five and thirty-five years. In another case, the father died of typhus at sixty-four, and the mother survived to the age of seventy-eight, though she had suffered for very long from chronic bronchitis, of which disease she ultimately died; but all the daughters, with the exception of one, died of phthisis before the age of thirty. A similar history attached to the third family, in which the father lived to the age of eighty-six; the mother died at seventy-three, after suffering more than twenty years from chronic bronchitis; but all their daughters died phthisical in comparatively early life. The frequent occurrence, on the one hand, of bronchitis in members of phthisical families, as shown in my analysis, and, on the other hand, of phthisis in the offspring of bronchitic parents, as in the cases I have just related, would appear to prove that the tubercular dyscrasia may be a cause of chronic bronchitis, quite independently of the existence of any actual deposit of tubercle in the lungs.

“With reference to the general facts elicited by the above analysis of the history and complications of ninety-six cases of bronchitis, I should not omit to tell you that this number is much too small to authorize the assumption that similar proportions will be found always to obtain in respect of the etiology of the disease. I have myself prominently brought forward the fact that in some manufacturing districts the proportion of cases of bronchitis arising from one external cause—namely, the inhalation of dust—is enormously increased. But I am, nevertheless, fully assured of the substantial truth of the views which I have given you on the subject, and am, moreover, satisfied, from long per-

sonal experience, that the proportion of cases of bronchitis arising from external causes is decidedly smaller, and that from gouty and other internal conditions of the system is decidedly larger, among the higher classes of patients whom we meet with in private practice, than it is among the working classes who form the bulk of our hospital patients."

Dr. Greenhow selected several illustrations from among the cases included in his analysis. The first was an example of simple primary bronchitis arising from exposure to cold and wet, and leaving, apparently, a life-long delicacy of the bronchial membrane. The patient derived much benefit from the use of the compound squill draught in combination with tincture of hyoscyamus and spirit of chloroform, and, as soon as the more urgent symptoms had abated, Dr. Greenhow substituted for these a mixture containing diluted nitrohydrochloric acid and compound tincture of gentian with the tinctures of larch and hyoscyamus. Under this tonic system of treatment he improved very greatly in all respects. "This case belongs," Dr. Greenhow said, "to a class in which great benefit may be derived from medical treatment during the exacerbations of the chronic bronchial affection, and in which much may be done by care and proper management to retard the progress of this latter; but in which also the disease itself has been too long and too firmly established to give us much hope of being able to effect a permanent cure, especially in persons necessarily liable to undue exposure. I have little doubt that on the first such occasion our patient will suffer a fresh aggravation of his malady, and will either find his way back to us, or seek relief at some other hospital."

In persons like this patient, who have long been subject to chronic bronchitis, Dr. Greenhow said, "I find the more stimulating expectorants, such as squills, the most effectual. But in almost all cases of chronic bronchitis a time arrives when expectorants cease to be useful. More or less expectoration indeed continues; but the secretion is of the nature of a flux from the bronchial membrane rather than the result of irritation. The treatment now required is of a tonic character, and zinc, iron, or quinine, will all of them at times be most useful; but I have long been accustomed to prescribe with great advantage the mineral acids, especially nitrohydrochloric acid, in combination with a vegetable bitter, retaining frequently the ipecacuanha and hyoscyamus. In old chronic cases attended by very copious expectoration, such balsamic medicines as ammoniacum, copaiba, Canada balsam, and benzoin, are often of great service; but as they are at the same time apt to disagree with the stomach, and as the digestive powers in such cases are often very feeble, I have for the last eight or nine years been using, in their stead, the tincture of larch, which has no such tendency, and which I have found at least equally serviceable in regard to the bronchial affection. Its effect is not only to lessen the expectoration, and with it the cough and dyspnoea, but also apparently to restore the debilitated membrane to a more healthy tone, and render patients less liable to catarrhal attacks at every change of weather or season. I take this opportunity of cautioning you against the indiscriminate use of blisters in bronchitis. Although they may sometimes be employed to great advantage in the chronic form of the disease, they must be regarded as unsafe remedies unless

the kidneys be perfectly healthy. In gouty persons, or whenever we have the slightest reason to suspect any tendency to renal disease, the use of blisters is hazardous, on account of their liability to produce irritation of the urinary organs. Probably this objection may apply less strongly to the use of liquor vesicans or of blistering-paper than to the old-fashioned blister; but it is more prudent in doubtful cases to abstain altogether from these modes of counter-irritation.

"Useful as medicinal agents undoubtedly are in allaying or curing attacks of bronchitis, I need not tell you that whenever the bronchial affection is even partially referable to an existing external cause, no permanent good can be effected without the removal of that cause."

Dr. Greenhow next entered on the consideration of secondary bronchitis, more particularly upon the relations between chronic bronchitis and the gouty dyscrasia, as shown in the remarkable fact, elicited by his analysis, that in thirty-four, or more than one-third, of ninety-six cases of bronchitis a distinct gouty history attached either to the patients themselves or to some other members of their families.

First, then, as regards the patients themselves, "I find that no less than fourteen were subject to attacks of acute regular gout as well as to bronchitis, and that in nine of these cases gout co-existed with the bronchitis while the patients were under my care. Eleven others had suffered from chronic gout attended by the formation of chalk-stones, or from what has been called rheumatic gout. I am indeed aware that some of our most eminent authorities consider regular gout and rheumatic gout as entirely different complaints; but I have so frequently seen rheumatic gout in persons some of whose immediate relatives suffered from regular gout, that I have no hesitation in regarding them as at least closely allied diseases. In the cases of nine other patients who had not themselves shown any symptoms of gout, it was ascertained that near relatives, such as parents, brothers, or sisters, had suffered from that disease; and this number, probably, by no means represents the true proportion of such cases, for, as you will remember, the family history could not be made out in much more than half the ninety-six cases analysed. These three numbers, however, fourteen, eleven, and nine, make up the thirty-four cases which I mentioned as showing the intimate relation between a gouty constitution and chronic bronchitis. The evidence on this head is, I think, strengthened by the fact that, in many instances, while some members of the patients' families had gout, others had bronchitis, and others again suffered from both complaints.

"In many cases in which, from active and temperate habits or from some other cause, an hereditary tendency to gout has not been developed in the characteristic form of that disease, it has manifested itself in the form of chronic bronchitis.

"In support of these views, I may mention that I have frequently known bronchitis and gout alternate; an obstinate attack of bronchitis subsiding on the occurrence of a smart fit of gout, and, though less frequently, *vice versâ*—bronchitis being developed on the subsidence of gout."

Dr. Greenhow illustrated his remarks on this subject by reading

several instructive cases, which he classed under the head of gouty bronchitis.

The first patient whose case was related had suffered from definite attacks of both gout and bronchitis, and was stated to have been subject to occasional psoriasis, one of those cutaneous affections which, Dr. Greenhow said, "are of common occurrence in persons of a gouty constitution. According to my view, therefore, that chronic bronchitis is frequently due to that same constitution, it is by no means surprising that, as the results of my analysis have shown, we find psoriasis or eczema associated with bronchitis in a considerable number of cases. These eruptive diseases often co-exist or alternate with gout in an individual bronchitic patient; but they are also sometimes present when there is no other proof of a gouty tendency in the personal history, though rarely, I think, unless they are of syphilitic origin, without the existence of some evidence of gout in the patient's family. One or other of these cutaneous affections existed in eleven of my patients during the time they were under my care, and of these, eight were subject to regular or rheumatic gout in their own persons, and there appeared to be a more or less decided gouty taint in the families of the remaining three. There were also three other patients who stated that they were subject to psoriasis or eczema, although free from those complaints while under my observation. They had not themselves suffered from gout, and were unaware of the existence of that disease in any member of their respective families; but the skin affection had certainly not been of syphilitic origin in any of the three instances, and, from the character of the bronchitic symptoms and the general aspect of the cases, as compared with those in which the psoriasis co-existed with the bronchitis, I had little or no doubt at the time that the bronchial and cutaneous affections both owed their origin to the existence of a gouty taint in the blood.

"The true relation which I believe to exist between chronic bronchitis, gout, psoriasis, albuminuria, and gravel, is that they all depend upon a common humoral dyscrasia, which in one case produces gout, in another gravel, in a third psoriasis, or, as in the cases which we have been considering, bronchitis co-existing or alternating with one or more of these other ailments. These are all, therefore, examples of one form of what in my last lecture I called Secondary Bronchitis—that is to say, bronchitis arising out of some internal condition of the system; that internal condition being, as we have seen, in all these cases, the existence of the humoral dyscrasia which is recognised as the cause of gout.

"Regarding the treatment of this form of secondary bronchitis, it is clear from the necessarily complicated nature of the subject that I cannot pretend to give you, especially within the limits of this lecture, any specific directions apart from the indications you will not have failed to gather from my own treatment of several of the cases discussed. The remedies appropriate to the bronchitis and to the other affections must obviously be varied and modified from time to time, in order to meet the constantly varying conditions of different patients, or of the same patient at different times; and this it is only possible to illustrate by means of examples, which might be infinitely multiplied if time allowed.

The one essential point towards the successful treatment of all such cases is that you should constantly bear in mind the presence of a constitutional cause for the local affection, and not rest satisfied with directing your efforts towards the removal or alleviation of the bronchitis, but endeavour as far as possible to combat the dyscrasia which is the real source of the patient's ailment."

ART. 32.—*On the Differential Diagnosis of Pneumonia and Tuberculosis.*

By Prof. SKODA.

(*Allg. Wien. Med. Ztg.*, 1863; *Schmidt's Jahrbücher*, 1867.)

Pulmonary infiltration can be diagnosed with certainty by percussion and auscultation of the thorax. Other assistance, however, is required for obtaining an exact diagnosis between pneumonia and tuberculosis, and for that purpose Skoda points out the following differential signs:—

1. The difference of the courses of the morbid processes. Pneumonia, in the great majority of cases, is an acute disease; tuberculosis is but rarely so. Whilst pneumonia generally attacks individuals who are healthy, acute tubercular infiltration very rarely appears in those who were just before in good health, but, in most cases, in those suffering from chronic tuberculosis.

2. The general bodily constitution. If a man, of a so-called phthisical habit, be suddenly attacked with an acute disease, a suspicion of tuberculosis is always justifiable, although the patient may be affected with pneumonia.

3. The seat of the disease is a very important point. If the patient be affected with an infiltration in the lower part of the lung, it can be said with precision, if he had been just previously in good health, and with great probability, if he had suffered at a previous period from tuberculosis, that the case is not one of acute tuberculosis. If infiltration take place in the apex of the lung in a healthy, robust, and strong man, this may be considered as a case of pneumonia; if, on the other hand, infiltration take place into the upper part of the lung of an individual already affected with chronic disease, the probability is very great that the case is one of tuberculosis.

4. Though at the commencement of tuberculosis and pneumonia the feverish symptoms, the cough, and expectoration are very much alike in both diseases, this is not the case with the stage of infiltration. In pneumonia this stage is developed very quickly, and may be observed on the first day, or from twenty-four to forty-eight hours after the commencement of the fever; in tuberculosis, on the contrary, dyspnoea presents itself late, and in a less severe form.

5. Pneumonia generally commences with feverish symptoms. The fever is a continued form, or it may be marked occasionally with very slight remissions. The development of tuberculosis, on the other hand,

is frequently accompanied by febrile paroxysms of an intermittent character; the fever is, however, sometimes continued, but marked with considerable remissions.

Lastly, whilst ordinary pneumonic infiltration disappears without leaving any trace, and in the very rare cases in which the affected lung tissue becomes actually destroyed, and healing is only completed after a removal of lung-tissue, this removal is at least compensated by a very active formation of connective tissue; in tuberculosis, destruction of the lung tissue is the rule. The disease, when it has attacked any part of the lung, never retrogrades, the cure is accomplished either through wasting of the parenchyma or through the formation of cavities.

ART. 33.—*A Case of Pleurisy treated by Thoracentesis and Injection of Iodine.*

By Dr. GUYÉNOT.

(*Mémoires de la Société des Sciences Médicales de Lyon.*)

"A man, thirty-four years of age, came under the care of Dr. Guyénot, on June 13th, 1866, for pleurisy on the left side, of ten days' duration. At first the inflammation was limited, but it soon extended high up on the left side. Under treatment, the effusion seemed to diminish in amount, but it soon came on again, and to such an extent, and accompanied with such severe constitutional symptoms, that it was thought proper to perform thoracentesis. This was done on July 15th; no bad results occurred, and fifteen hours after the operation the inspired air extended to all parts of the chest on the left side. But from the 1st of August the patient had daily rigors, at first slight, afterwards more marked. As the general health became disturbed, and the fluid again increased, a second tapping was performed, Oct. 12th, and $2\frac{1}{2}$ pints of thick pus were withdrawn; M. Guyénot then injected 30 grammes of tincture of iodine, and allowed it to remain. There were no bad results, and seven days after there was a clear sound on percussion over the upper two-thirds of the left side of the chest; whilst the patient seemed to be in a very favourable state, painful œdema made its appearance in the left leg; this soon went away, but appeared again in the other limb. Pus collected again in the chest, and the patient died on Nov. 15th.

"On *post-mortem* examination the pleura was found much thickened, and its tissue was hard and brawny; the left lung was pushed backwards against the spinal column, and was covered by false membrane; in the inferior vena cava and right popliteal veins were large softened clots. The whole venous system was filled with recent clots looking like currant jelly."

Dr. Guyénot thinks that the conclusion to be drawn from this case is, that it would have been better if the iodine had been injected after the first tapping. He thinks that the operation should be performed

earlier than it usually is; and that the iodine injection (much more harmless than is generally supposed) is of more service when applied to serous than to purulent effusions.

ART. 34.—*Case of Pleuritic Effusion ; Paracentesis Thoracis ; Recovery.*

Under the care of Mr. HENRY EWEN, F.R.C.S., Long Sutton,
Lincolnshire.

(*British Medical Journal*, April 27, 1867.)

The following case is related by Mr. Ewen :—

"On March 27th, 1866, I visited Mr. J. F., aged thirty-two. He had been ill about three weeks when I saw him, and had been exposed to wet and cold, and much fatigue. His illness commenced with febrile symptoms, and pains about his left side, for which sinapisms and turpentine epithems had been applied. His countenance was anxious; respiration hurried; pulse 130. He had a troublesome cough, with copious muco-purulent expectoration; there was loud bronchophony below the clavicle on the right side. There was dulness on percussion throughout on the left side, and total absence of respiratory murmur. The heart was displaced and pulsating on the right of the sternum.

"March 31st.—The patient's condition was in all respects the same.

"April 9th.—There was no improvement. A grooved needle was introduced just below the inferior angle of the scapula, and between two ribs on the left side; and, as we expected, serum escaped along the groove. A trocar and canula was then introduced at the same spot, and fifty ounces of serum were drawn off, to the great relief of the patient. A compress of lint and adhesive plaster were applied to the wound. In the course of a few days the patient was able to leave his bed, and his improvement was gradual and steady, so that in the course of a few weeks he was able to resume his employment. I saw him in October, when he was on his way to Bicker, where he now resides, and at that time his health was fairly established."

ART. 35.—*Whooping Cough.*

Hospital Out-Patient Practice.

(*The Lancet*, April 27, 1867.)

It will be seen that the experience of hospital physicians is for the most part against the curative effects of any remedy in this complaint, although due credit is accorded to the relief which may be given by the use of certain drugs.

At St. Thomas's Hospital the usual prescription for a child of four years

would be more or less as follows :—P.L. Solution of acetate of ammonia, half an ounce; spirit of nitric ether, one drachm; chloric ether, half a drachm; oxymel of squills, one drachm and a half; syrup of tolu, two drachms; water to two ounces: two teaspoonfuls every six hours. In addition to this medicine, of which the chloric ether is the permanent element, and the other constituents the variable, Dr. Gervis lays much stress upon the use of the chloroform liniment, directing that it is to be rubbed into the chest both anteriorly and posteriorly night and morning. Under this treatment, and with the usual directions as to diet and regimen, there is almost invariably considerable improvement within a week, and very frequently within ten days or a fortnight the “whoop” has quite passed off, although some amount of cough may linger for a little while, and require appropriate treatment. In more chronic cases, and where there is little or no bronchial disturbance, alum is substituted for the saline in combination with chloric ether; and, as in the other class of cases, the chloroform liniment is employed externally. If in cases where the catarrhal symptoms have subsided, but where the whoop remains, there should be much debility, the combination of quinine with the alum and chloric ether is very advantageous. If symptoms of cerebral irritation, with or without convulsions, should occur, Dr. Gervis has repeatedly obtained the greatest advantage from small doses of morphia; and this both in cases where no remedial measures for this complication have been previously tried, and in others where antiphlogistic treatment—leeches, calomel, blisters—has been assiduously but unavailingly adopted.

Dr. Dickenson, of St. George's Hospital, thinks that antimonials, and all such remedies of the depressing class, appear to be injurious by lowering the patient without touching the disease; while the most that can be said for nitric acid and bromide of ammonium is that where they are given in small doses they do no obvious mischief. When the spasmodic cough is violent and threatening, as is apt to be the case in the later stages of the disease, medicines which act as sedatives may be given with advantage. Opium is sometimes useful under these circumstances, sometimes belladonna; hydrocyanic acid is better than either. The dilute acid of the *Pharmacopœia*, in minim or half-minim doses, according to the age of the child, is more effectual than anything else in diminishing the laryngeal spasm, which is often a source of danger.

Bronchitis and pneumonia, which frequently occur as complications, may be treated in the manner which is proper when these disorders arise under other circumstances, bearing in mind, as an extenuating circumstance, that the patient has, in the whooping-cough, to struggle against an exhausting disease.

With whooping-cough, therefore, we may limit our endeavours to meeting complications, and modifying unfavourable symptoms. Probably in most cases all that is necessary is to guard the patient from the chance of catching cold.

At King's College Hospital the simplest expectorants only are employed by Dr. W. S. Playfair. When the disease is more fully developed the bromides, either of potassium or ammonium (for there appears to be no marked difference in the action of the two salts), have been on the

whole more frequently used than any other drugs. They have been generally given in doses of a grain for each year of the child's age, increasing the amount gradually if they seem to be of service. The next most useful remedy has been found to be belladonna, which is generally tried when the bromides have failed. In the more advanced stages of the disease, and in very feeble children, it has been found of much use given in combination with cod-liver oil and syrup of iodide of iron. Minute doses of hydrocyanic acid, generally combined with some preparation of bark, are sometimes serviceable. It seems to act best in the same class of cases as the bromides, but appears to be less generally efficacious.

At the Westminster Hospital Dr. Gibb prescribes the following formula:—An ounce of the dilute nitric acid, four drachms of compound tincture of cardamoms, and enough simple syrup to make a six-ounce mixture. For an infant the dose is a teaspoonful every three or four hours, and for children from two to five years of age two or three drachms at the same periods. Occasionally he has found it convenient to add an ounce of glycerine, diminishing the mixture by an equal quantity of the syrup. This form of giving the acid in syrup is liked by the child and is well borne, and the good effects are very speedily visible in diminishing the severity and frequency of the spasms. According to the frequency of the paroxysms, together with their violence, severity, and duration, so is their soreness or uneasiness at the upper part of the larynx; this Dr. Gibb obviates by the topical use of a solution of nitrate of silver to the larynx (twenty grains to the ounce) by means of a curved brush.

The advantage of the nitric-acid treatment is that it can be given in the three stages of the disease. When the nervous element, however, is very strong, and there are manifestations of cerebral irritation, Dr. Gibb has substituted the bromide of ammonium for the nitric acid, in doses of from four to fifteen grains according to age, combined with ipecacuanha wine, and occasionally small doses of sulphate of zinc. Provided there are no dangerous or severe complications requiring special measures, it has been found that each of these two modes of treatment proves successful in curing the great majority of cases; and we are told it is somewhat unusual, unless when easterly winds are prevailing, for children at Westminster Hospital to remain longer under treatment than from two to five weeks. In very young children and infants, a few doses sometimes of the nitric-acid mixture are sufficient to effect a cure; and if the little patients are carefully looked after, warmly clad, and properly fed, there is no recurrence of the disease.

When properly managed, Dr. Gibb considers pertussis to be a disease in every way amenable to treatment. The great effort of the physician should be to ward off complications, and quickly deal with them when they arise. In many hundreds of examinations Dr. Gibb has found the fact hold good, which he was the first to announce many years ago, that the urine in pertussis is almost invariably saccharine.

Dr. Julius Pollock, of the Foundling Hospital, says, no remedy appears to shorten in any way the disease, but the most useful treatment was found to be the following:—To keep the room warm (56° to 60°);

to give emetics at the beginning, and, when necessary, occasionally during the disease; to keep the bowels freely open; and to give the following mixture three times daily:—Dilute hydrocyanic acid, one to two minims; ipecacuanha wine, five to ten minims; compound tincture of camphor, ten to twenty minims; water, half an ounce.

ART. 36.—*Croup.*

By Dr. F. PAULI, Wurtzburg.

(*Medical Times and Gazette*, April 13, 1867.)

Dr. Pauli defines true croup as a non-contagious local diphtheritis, usually appearing sporadically—a peculiar inflammation of the mucous membrane of the larynx and neighbouring respiratory passages, followed by formation of false membrane, which produces contraction of the respiratory tract, with all its accompaniments leading to asphyxia and death. Under favouring conditions, especially in epidemics, general diphtheritis, a kind of blood-poisoning as in typhus, and highly infectious, may accompany it and increase its danger.

As to the diagnosis of croup, Dr. Pauli founds it on its etiology as well as on its symptomatology. The disorders he enumerates as most likely to be confounded with it are general diphtheria, angina tonsillar, laryngitis simplex, œdema glottidis, tracheitis pseudo-membranacea, capillary bronchitis with false membrane, angina herpetica of Guersant, not yet generally known in this country, retro-pharyngeal abscess, foreign bodies in the windpipe, angina gangrænosa, and lastly, spurious croup or laryngismus stridulus. The grand diagnostic in this last case he makes the sudden accession of the attack, but in all cases he thinks it possible to arrive at an exact opinion as to the nature of the disease.

In treating croup our author declares against bleeding or blistering, and relies chiefly on emetics, especially after the membrane has begun to separate. Such substances as sulphuret of potassium and sulphate of copper he entirely rejects. Tracheotomy, with him, as with most continental authorities, is the favourite remedy; and, like most of them, he also prefers a peculiar instrument (which is described and figured) to the simple scalpel usually employed in this country.

The indications and counter-indications of the operation may interest our readers, and we shall therefore give them at length.

Tracheotomy is indicated—

1. When the child is not too young—from six to ten is the best age—and it should usually be avoided when the child is under two years.
2. In strong healthy children.
3. In catarrhal croup and diphtheritic laryngitis, when general diphtheria is absent.
4. When there is no doubt of laryngeal impediment by false membrane, and ordinary remedies, especially emetics, have failed to remove it. Even then cyanosis should not be allowed to appear, but the opera-

tion should be promptly performed, especially when there is a strong tendency to sink.

5. Continued dyspnœa, with commencing asphyxia and absence of an attack of suffocation, affords the last and most pressing indication of tracheotomy.

6. Inflammation of the larger bronchi does not contra-indicate the operation, according to Guersant.

7. Diminution of the pulse during inspiration, showing a high degree of obstruction, indicates, in the absence of contra-indications, the immediate performance of the operation.

8. Albuminuria, as a result of simple *renal congestion*, indicates tracheotomy, according to Barbosa.

9. Violent attacks of suffocation indicate the operation, showing as they do the presence of considerable power and the absence of neuro-paralysis.

10. When the fever is sthenic, and the breathing not stertorous, the operation is indicated, nor do the opposite conditions altogether contra-indicate it.

11. The rapid approach of asphyxia as a result of local obstruction to the entrance and exit of the breath indicates immediate operation, according to Duhomme and Tonquet.

The operation is contra-indicated—

1. By decided general diphtheria along with coryza and great tenderness of the inflamed submaxillary glands, especially when they are much swollen.

2. In croup following measles or scarlatina, on the ground that the child has been weakened by the preceding disease, and that general diphtheria easily shows itself.

3. By delicacy of the patient, previous sickness, weakening treatment, and tuberculosis.

4. By extensive pneumonia, especially on both sides, and by emphysema.

5. By paralysis of the soft palate and uvula, whether complete or partial.

6. By the inefficacy of emetics, as indicating the existence of neuro-paralysis, or of very great weakness.

ART. 37.—*Diphtheria.*

By W. WATSON CAMPBELL, M.D., M.R.C.P.

(*Edinburgh Medical Journal*, February, 1867.)

Dr. W. Campbell has been led to communicate this paper by the fact that he has had much success in the treatment of diphtheria by the permanganate of potash gargle, the tincture of the muriate of iron, and port wine. He states that towards the end of his attendance on a patient, he caught the disease himself. He at once began with the iron and wine; and tried the effect of the gargle, which, though weak,

seemed to have good effect, as the spots he had observed on his tonsils in the morning were rather smaller before bedtime. Next morning they were as large as ever, but under the influence of the gargle, more freely used, they all but disappeared before the night. This state of matters continued for about a week—the exudation disappearing when the gargle was used, and reappearing when it was stopped. At last he used it considerably stronger (gr. x to ʒxxx) and more frequently for a short time, and he was soon all right. Of twenty-three cases of diphtheria which occurred in Dr. Campbell's practice before he used the permanganate of potash gargle, ten died; and of twelve cases which have occurred since, *none* died.

ART. 38.—*The true First Stage of Consumption.*

A Lecture delivered at the Royal Infirmary for Diseases of the Chest, by HORACE DOBELL, M.D., Physician to the Infirmary, &c.

(*British Medical Journal*, February 23, 1867.)

Recent advances in our knowledge of the natural history and pathology of tuberculosis have made it essential to an enlightened treatment of the disease, that we should no longer delay making a radical change in the nomenclature of its several stages.

That which has heretofore been called the premonitory stage should, in my opinion, be at once recognised as the true first stage of consumption.*

There is no doubt, that many scientific members of our profession have for some time past recognised that the commencement of consumption precedes the formation of tubercle. But, so long as the first stage of the disease is said not to begin till the formation of tubercle, so long will there be a misunderstanding, among the majority of practical men, as to the importance of any period by which this is preceded. The use of the word "premonitory" to the stage which precedes the formation of tubercle, is the most dangerous snare that could be laid for both doctor and patient. Is it not the proverbial failing of mankind to disregard mere warnings or premonitions, and to leave everything to the last? Even in the preparation for eternity, belief in the efficacy of death-bed repentance has always had a fascination for the human mind; and in the every-day affairs of life this spirit of procrastination still more universally prevails. Who, then, can be expected to stop in the midst of the absorbing pursuits of letters, politics, commerce, and society—to change his plans, and adopt a rigorous system of hygiene—merely because he is told by his physician that there are "premonitory" symptoms of disease? that is, so far as the patient can understand, signs that he may happen at some future day to suffer from disease.

This is a matter on which we must not be satisfied because, as patho-

* I use the old name consumption, because I do not think we shall ever find a name better suited to the disease.

logists, we ourselves understand what we mean by the terms we use. It is essential to our own action in practice that we establish a popular appreciation of the facts of the case. Unless our patients and their friends attach the same importance to the words in which our opinion is delivered as we do ourselves, we may as well hold our tongues; for our advice will be disregarded.

[The lecturer went on to show why the stage hitherto called by the "unalarmed name premonitory" ought to be called in future the true first stage of the disease. He said:] The first point which I wish to put prominently before you, is the admitted fact that there is no possible means of ascertaining with absolute certainty, during life, the existence of a score or two of scattered tubercles in the deeper parts of the lungs. Yet the formation of one microscopic tubercle is proof of the setting in of what is now called the first stage of consumption. This alone ought to be a sufficient reason for changing the nomenclature. It is utterly absurd, when applied to practical medicine, to make a disease begin at a point at which a serious structural change takes place, but which it is impossible to identify with certainty during life. [He pointed out that the names premonitory stage and first stage, as now employed, can have no sense except upon the assumption that the deposit of tubercle constitutes the disease, and that thus a false pathology is doubly impressed upon both physician and patient.] What, then, is this first step in the important series of changes constituting consumption? Have we any signs or symptoms indicating its occurrence upon which we can rely with any certainty at all? [He then explained his views upon the nature and cause of tuberculosis, as already published;* and said that, according to them, pure tuberculosis commences when fats properly acted upon by the pancreas first cease to pass in normal proportions into the blood; tuberculization, or the formation of tubercle, commences when albuminoid matter is abnormally seized upon for its fat elements.] It is to this stage of tuberculosis, beginning with the defective supply of pancreatized fats to the blood and terminating when the loss of fat in the blood has gone so far that the albuminoid materials are seized upon and tubercle produced, that I wish to confine my remarks to-day. It is this which, in my opinion, ought to be called the true first stage of consumption, because it is, in truth, the beginning of the disease; whereas the formation of tubercle is only an effect of the advance of the disease. It is, in fact, the earliest step in the decay of the body, the first yielding up of the tissues to destruction, as distinguished from their normal wear and repair.

[After dwelling at some length on the importance of learning to appreciate the peculiar aspect of consumptive patients, and to identify it under a variety of circumstances, he said:] I will endeavour to give a few guides to diagnosis, which, while they have much to do with the production of the aspect, lie more easily within our grasp, and approach more nearly to the character of physical signs. Three essential elements combine to give the key to all the changes of consumption. Some indication of their existence is very easily detectable—loss of fat and of flesh, loss of strength, and disturbance of temperature and of excita-

* *Tuberculosis; its Nature, Cause, and Treatment.* Churchill.

bility. They are easily understood if we keep in mind the nature and cause of tuberculosis—viz., defective or deficient supply of pancreatized fats to the blood. Under the head of loss of fat and flesh, he described and explained many sources of fallacy; and, under the head of loss of strength, he showed that it could be at once explained by a consideration of what are the sources of power in the organism, going at some length into the modern views of potential energy, and the relation of heat and mechanical force.

[After speaking of the distinctive diagnosis of tuberculosis, and of its relation to anæmia, he went at length into the treatment of the true first stage of consumption; showing, in the first place, what would be the proper curative treatment, if the arrest of pancreatic function were detected at its onset in its simplest form, and then describing at length the many difficulties which usually complicate cases when ordinarily presented to the physician. These difficulties were enumerated under the head of hereditary predisposition; the state of the mucous lining and absorbent system of the alimentary canal; susceptibility of consumptive persons to cold; the daily vicissitudes of life influencing the emotions; bad habits; unfavourable occupations and dwellings; and the imminence of tuberculization. In the majority of cases of the true first stage of consumption, tuberculization was just on the point of commencing when the patient was brought to the physician; and this danger must be provided against before anything else could be thought of.

[After pointing out the proper time and mode in which to use cod-liver oil and pancreatic emulsion of solid fat, and the objects to be attained by their administration, he went into the subject of diet, exercise, air, the use of quinine and of iron. With respect to the latter, he said:] Let me caution you never to give iron to a consumptive person until you have effectually supplied all deficiencies of fat to the system; and never to give iron to an anæmic person till you have ascertained that there is no defect in the supply of fats to the blood.

[Climate, or change of air, was then treated at length; the objects of climatic treatment being divided under three heads.]

1. The restoration of healthy pancreatic function—*i.e.*, the radical cure of tuberculosis.

2. The economy of fat and carbon in the organism and the protection of the lungs from undue oxidation—*i.e.*, provisional protection against tuberculization.

3. Removal or prevention of catarrhal affections of the air-passages, of chills to the general surface, and of local congestions, &c.—*i.e.*, the collateral treatment of tuberculosis.

It happens that the climates necessary for the second and third of these objects are utterly different from those required for the first; and that the climate required for the second object is frequently unfit for the attainment of the third. No wonder, then, that attempts to cure consumption by change of climate, undertaken without any clear appreciation of these important distinctions, should so often fail; and that when they succeed it should appear to be attributable to a sort of good luck. [He then explained these incongruities, showing what kind of climate was adapted to each of the objects in view; and con-

cluded by an elaborate epitome of the chief points by which treatment should be guided in the true first stage of consumption.]

ART. 39.—*On Diabetic Phthisis and its Treatment.*

By BENJAMIN W. RICHARDSON, M.A., M.D., F.R.C.P., Senior Physician to the Royal Infirmary for Diseases of the Chest.

(*Medical Times and Gazette*, March 2, 1867.)

The first general symptom of this rare disease Dr. Richardson says is severe hectic, the hot stage of which is very extreme, and, instead of being followed by profuse sweating, is succeeded by great coldness of the surface of the body, depression, and copious elimination of urine. Difficulty of breathing is a marked symptom; cough is common, but is usually hacking only, and is unattended with any quantity of expectoration. Hæmoptysis, in the strict sense of the word, he has not seen; but sputa of a rusty character in small quantities is frequent. There is little acute thoracic pain, but great oppression. Waste of bodily substance is extreme.

The physical signs are well marked. If the disease is seen early, patches of lung, like so many centres, give signs of dry crepitation; rapidly this crepitation extends over the whole lung. In one of his cases, during the last six weeks of life he could put the stethoscope over no part of the chest without hearing crepitation. The crepitation is distinctly that of early tubercle; it is wanting in the fineness of early pneumonic crepitation. In course of time there is some tendency to softening of tubercle, but this is very limited, and he has but once observed the actual formation of cavity. Death takes place, in fact, too early to give time for softening or absorption of tubercle; added to this, the diabetic condition seems to interfere with the process of softening, probably by the removal of water from the tissues.

Percussion over the chest where there is crepitation may be dull, but this sign is not essential.

Whenever there is clearly-developed diabetic phthisis the *prognosis* is inevitably bad, according to our present knowledge of treatment. Further, the prognosis is almost definite as to time: he has not seen a case that survived four months after the tubercular condition had been obviously present. From six to ten weeks is the common duration of the term of life from the period of severe and definitely recurring hectic.

After death the condition of lung is peculiar, and in three cases—the only cases he could be allowed to inspect—the condition was the same. The lungs were much shrunk and dry; they were greyish and darkly mottled in colour; the tissue was filled with small dark tubercle, and there were a few patches of deep vascular congestion. There was no pleuritic adhesion, no serous effusion, no pulmonary cavity.

In every case of diabetic phthisis he has seen there has been disease of the base of the brain. In one case there was a growth of bone pressing upon the under surface of the medulla oblongata; in another case

there was softening of brain substance, and in a third case there was disease of the vessels with thickening of the membranes and old adhesions. In one of these cases the patient had been under the late Dr. Baly for "acute meningitis," and his symptoms of diabetes followed that attack immediately. As he recovered from his acute illness he discovered himself diabetic.

The pathological relationship of diabetes and phthisis of the lung seems to him to be through the nervous system. That there is a functional and an organic type of diabetes; that the functional type is largely curable, and the organic absolutely incurable; and that the functional type is connected with a false digestion, owing to temporary interference with nerve action—these, he thinks, are facts which every scientific physician must be prepared to accept.

Some difference of opinion, however, yet exists as to the relationship of diabetes to disease of the brain. The progress of experimental inquiry has all been to the effect that lesion of brain-structure is an efficient cause of the diabetic condition; but Dr. Ogle has recently, in a most laboured and able paper, maintained that the brain lesion sometimes found in diabetes is a result of structural change incident to the diabetic state, and a result instead of a cause. He does not propose to discuss this refined question now, but he would point out that when phthisis of the lung is developed during diabetes, the morbid change appears to be the result of what may truly be called innervation of the lung-tissue. That the change is not due merely to modification of the blood is certain from the fact that diabetes may exist or prove fatal without the occurrence of pulmonary phthisis or any sign of it. The occurrence of the phthisis also takes place, as he thinks experience shows, only when the diabetes depends on lesion at the base of the brain. It is fair to presume, therefore, that in such cases the nervous injury has so extended as to involve at their source the nerves from which the pulmonic structure is supplied.

Regarding treatment in diabetic phthisis. Dr. Richardson says he has tried various plans—oxygen by inhalation, oxygen by peroxide of hydrogen, special diet, change of air—and all to no purpose. Still there are certain points of practice which are worthy of note. He names two especially.

1. He is convinced that in this malady oxygen and its allies, chlorine, iodine, or their compounds, do harm: they increase elimination, and reduce accordingly.

2. He is equally certain that a diet restricted to albuminous products is utterly wrong both in theory and in practice. He believes that in functional diabetes a great deal can be effected by restricted diet, coupled with the method first suggested by Rollo, of giving with such diet ammonia and iron freely. He doubts, however, the practice of restricted diet in every case of organic diabetes, and in cases where there is the faintest indication of phthisis the restricted diet becomes, he feels sure, a positive evil. So soon as diabetic phthisis is established the general dietetic rules for phthisis alone are the rules, and the only rules, to follow. In the way of affirmative treatment the principles are—to sustain warmth of body, to check waste by opium and quinine, and to sustain by good food, especially by the free use of animal oil. In the

next case he has to treat he will give animal oil, not by the spoonful, but by the half-pint at a time. He will give it as the Esquimaux takes it, and for the same reason, to sustain the lost caloric in his case too rapidly carried away by the surrounding cold, and in the case of the diabetic man by the excessive formation, dissolution, and elimination of sugar. To this last remark he would add that, in respect to the treatment of organic diabetes altogether, there is more hope in the free use of animal oil than in any other remedy.

ART. 40.—*Treatment of Hay-Fever.*

By W. ABBOTTS SMITH, M.D., M.R.C.P., &c.

(On Hay-Fever, Hay-Asthma, or Summer Catarrh.)

With respect to the effects of medical treatment, about which nearly every writer on hay-fever appears doubtful, Dr. Smith sees no reason for thinking that the symptoms may not be generally very much mitigated. He believes that, except in cases where the predisposition is strongly marked, or where the affection has been allowed to get too complete a hold upon the system, careful avoidance of the exciting causes and judicious treatment will succeed in eradicating the disorder, or, at all events, reduce the attacks to a minimum, whether as regards their severity or their duration. In treating hay-fever, as in treating other affections, it is worse than useless to attempt to find a specific remedy for all cases, or to treat all by the same medicines. The treatment may be divided into two parts—viz., the prophylactic, and the curative or palliative. The former will consist chiefly in the avoidance of the exciting causes of the disorder, such as the aroma of ripe grass or newly-made hay and of strong-smelling flowers, &c.; protection from the heat of the sun, especially about mid-day, and only a moderate amount of out-door exercise. Removal to the sea-side is sometimes found beneficial, especially in those cases in which the febrile or asthmatic symptoms predominate. When the affection has actually made its appearance, warm fomentations, with either water or decoction of poppies, will relieve the swelling, pain, and irritation of the conjunctivæ and eyelids. Glycerine or cold cream should be applied occasionally to the interior of the nostrils by means of a camel-hair brush or a feather. The frequent inhalation of the steam of hot water (either simple or medicated), and of different sedatives, in the form of atomized fluid or spray, will be found valuable in relieving the unpleasant tickling sensation felt in the mucous membrane of the nasal and other air passages. Small pieces of ice, dissolved at frequent intervals in the patient's mouth, often avail more than anything else in obviating the heat, dryness, and tickling sensation felt in the roof of the mouth, the palate, and fauces. The following remedies are the best for internal administration:—Lobelia, in full doses of the tincture, three or four times a day; the preparations of opium, especially the tinct. camph. co.; and the other principal sedatives and antispasmodics. Tobacco-smoking

sometimes effects wonders in diminishing the severity of the paroxysms. Bromide of potassium, or of ammonium, in five or ten grains, or even larger doses, according to the age of the patient and the intensity of symptoms, given in infusion of quassia or gentian, will prove efficacious in cases where the irritability of faucial or bronchial is extreme. When the patient's constitution requires invigorating treatment, quinine, quassia, and gentian, or the preparations of iron, zinc, and arsenic, and other mineral tonics, may be administered. In all cases it will be found judicious to prescribe an occasional saline cooling aperient. Lowering depletives must be carefully shunned. The diet should consist of nutritious, easily-digested food, with pale ale, sherry, or claret at lunch and dinner. All vegetables, excepting potatoes or salads, should be avoided, as well as tea, for which coffee, cocoa, or chocolate may be substituted.

(C) ALIMENTARY SYSTEM.

ART. 41.—*Vomiting.*

By THOMAS KING CHAMBERS, Consulting Physician to
St. Mary's Hospital.

(*The Indigestions or Diseases of the Digestive Organs Functionally Treated.*)

The following case illustrates the good effects of opium in checking the vomiting of consumptives:—

"B.'s Anonyma, aged about twenty-five, was placed under my care in March, 1861. She had a large vomica in the upper lobe of the left lung, and the greater part of the lower lobe impervious with tubercles; but she had suffered very little from pulmonary symptoms, would not hear of her being in a consumption, and talked about going to dances in a low dress as soon as she could get about again. But she was utterly prostrated to her bed by the constant vomiting of all she ate, and retching when she ate nothing. The bowels were obstinately costive, and she had taken as much as twelve grains of extract of colocyath without effect.

"I gave her opium, beginning with a grain, and augmenting it to six grains daily. Then the vomiting ceased, and she recovered her appetite and fondness for luxurious living. She ate twelve shillings' worth of strawberries (in April) daily, and an immeasurable quantity of brown-bread ice. Her bowels recovered their functions, and she passed naturally coloured and formed stools in spite of the opium. She slept naturally and easily without excess or stupor.

"She died in the summer, but was able to keep off her vomiting to the last with the help of the opium. I think, however, she increased the dose. So that her end was made much more easy, and probably postponed by it."

ART. 42.—*Quinsy.**(The Lancet, March 30, 1867.)*

The following is a brief report of the treatment adopted in cases of quinsy by physicians at several of the metropolitan hospitals:—

Westminster Hospital.—Two remedies only are, in Dr. Anstie's experience, of real value. If the case be seen early—*i.e.*, within forty-eight hours of the occurrence of decided pain, before the swelling has become definite in form, and more especially if there has been no shivering and the febrile action is but slight, the application of strong local astringents is almost certainly curative. The rough way of using this treatment is to order the patient to gargle every half-hour with a solution of alum—twenty grains to the ounce. A more precise and effective use of the same astringent can be made by throwing such a solution, in the pulverized form, against the affected part. Another effective mode of local adstriction is the application of tincture of sesquichloride of iron on a sponge carried by a whalebone, which may be firmly pressed against the part. The other remedy besides local adstriction is the use, in suitable cases, of purgative medicine. If (and only in this case) there is reason to think the bowels are loaded, a brisk purge of any kind which does not produce exhausting serous exhalation will frequently give great and speedy relief.

If the disease has plainly gone on to the formation of pus, the above remedies are useless, and will only worry the patient. Our attention should then be directed, Dr. Anstie believes, to soothe pain, and to keep the swelling within bounds, while we also support the patient's strength. Hot fomentations and poultices should be applied around the throat, the patient should gently inhale the steam of boiling water, and he should be given strong beef-tea and small quantities of wine or brandy every four hours. In nine cases out of ten the pus may be left to find a natural opening, and only the occurrence of serious mechanical dyspnoea, or the appearance of a tendency to spreading of the suppuration, should induce us to use the lancet.

University College Hospital.—Dr. Wilson Fox treats ordinary cases of tonsillitis which present themselves within the first forty-eight hours of the invasion of the disease with a brisk mercurial cathartic, followed by a saline aperient draught. In cases which have even run a course of three or four days, the same plan is found by him to be beneficial, if the bowels have not been previously acted upon. Even in the early stages, unless the use of gargles gives much pain, he employs the following formula for this purpose:—Chlorate of potash, three drachms; nitrate of potash, half an ounce; glycerine, half an ounce; water, eight ounces. When seen early, this course is, in his experience, almost invariably sufficient to cut short the disease in a few days' time; and he scarcely recollects an instance where it has been adopted in which abscess has ensued. In cases of very severe swelling, he has occasionally found scarifications useful; but he regards these as quite exceptional. If ulceration supervenes, either upon the tonsils or on the fauces, the solution of nitrate of silver, of the strength of fifteen grains

to the ounce, is, in his opinion, the best remedy; and it may be advantageously applied to the tonsils, when suppuration is not present, in cases where the swelling lasts longer than five or six days. Dr. Fox strongly deprecates the use of the solid nitrate of silver in the early stages of the disease.

St. Thomas's Hospital.—In treating cases of acute quinsy among the out-patients, Dr. Clapton generally prescribes a dose of castor oil or of calomel and rhubarb to be taken immediately, five or ten grains of Dover's powder at bed-time, and a mixture of citrate of potash, spirit of nitrous ether, and syrup of poppies every four hours; frequent inhalation of the vapour of hot water, and the application of linseed meal and mustard poultices. In case of considerable extension of the disease to the pharynx, tongue, and other neighbouring parts, with much superficial soreness, occurring as it commonly does in patients who are very feeble or strumous, a mixture of chlorate of potash, hydrochloric acid, and decoction of bark is preferred, and a little hot wine-and-water recommended to be taken frequently. Stimulating gargles have generally been found by him to be far more hurtful than useful in the early stage, as causing great increase of irritation and much needless pain. Washing out the mouth and gently gargling with glycerine and warm milk-and-water, however, will be found to give great relief.

Suppuration is found to occur in about half the cases, but incisions are very rarely deemed necessary. When a patient has been the subject of repeated attacks of acute quinsy ending in suppuration, the plan of applying a liniment of thin extract of belladonna just below and behind the ramus of the jaw has been found a most excellent one, rapidly relieving the pain and intense irritation, and in some instances cutting short the progress of the disease almost at once; but, for obvious reasons, this plan cannot be commonly adopted amongst out-patients. As soon as the acute symptoms have subsided, either by resolution or by the formation and discharge of pus, tonics, as quinine or the tincture of perchloride of iron, acid astringent gargles, and as nutritious a diet as can be procured, are ordered, as the majority of patients of this class are compelled to expose themselves to fresh sources of cold as soon as convalescent, and thus a relapse of the inflammation (mostly on the opposite side of the throat) may generally be expected.

St. Mary's Hospital.—The treatment Dr. Broadbent has found most useful in quinsy is as follows:—Demulcent gargles, such as weak linseed-tea or decoction of althea, used warm at short intervals, and inhalation of steam; the addition of hyoscyamus to the gargles has seemed to be useful. Poultices round the throat, or, in the early stage, a cold-water bandage or spirit-lotion. When suppuration has taken place or the acute stage is passed, an astringent gargle—*e.g.*, the compound solution of alum in infusion of roses—is substituted for the mucilaginous applications. If there is great œdema about the soft palate, the parts are scarified, unless the jaw is closed so as to prevent access; and where necessary, abscesses in the tonsils are opened. A saline purge is given if the bowels are confined, and in most cases from twenty to twenty-five minims of compound spirit of ammonia in compound infusion of gentian or other bitter infusion.

In incipient sorethroat, of whatever kind, Dr. Broadbent has for some

time given small fragments of guaiacum resin—a piece to be kept in the mouth till dissolved three or four times a day. The good effects have been very evident, more particularly in superficial inflammation of the mucous membrane; but tonsillitis has apparently been arrested, and in patients subject to quinsy attacks have been averted.

Charing Cross Hospital.—Dr. Headland prescribes, during the continuance of fever and swelling, half-drachm doses of antimonial wine with a magnesia purge thrice daily. The patient is restricted to liquid or very soft food. A linseed-meal poultice is kept round the throat by night, and several rolls of warm flannel replace it by day. When supuration is approaching, Dr. Headland thinks it seldom advisable to interfere with the lancet. In most cases the abscesses discharge best if left to themselves. Only in those rare cases where suffocation is threatened is it necessary to resort to free incisions of both tonsils. During convalescence quinine is given, a supporting regimen is ordered, with a somewhat free allowance of stimulants.

In chronic enlargement of the tonsils without fever Dr. Headland gives various tonics, but relies chiefly on cod-liver oil combined with iodide of iron. Among local remedies the alum gargle is preferred, but in obstinate cases touching with solid nitrate of silver is resorted to.

ART. 43.—*Compression of Epigastrium by Shoemakers.*

By THOMAS KING CHAMBERS.

(*The Indigestions or Diseases of the Digestive Organs functionally Treated.*)

Dyspepsias, such as Dr. Chambers has attributed to the pressure of stays in women, are common in one class of men—namely, cobblers; arising in them from a cause of physiologically exactly the same nature, the compression of the epigastrium by the last on which the boot or shoe is worked.

The following case shows it in an incipient stage:—

Joseph J. D., aged nineteen, just out of his apprenticeship to a shoemaker, was admitted to St. Mary's Hospital under the care of Dr. Chambers, October 13th, 1861. He complained of weakness in the wrists, which became painful after work, and of constipation; he spoke also of pain in the chest, which induced Dr. Chambers to examine his lungs. These, however, were found healthy, and he had no cough. On further inquiry, it appeared that the pain he spoke of was in the epigastrium, and was increased by pressure, and by taking food. Rest and quinine improved him rapidly, so that he was made an out-patient within a week.

The next case exhibits a further stage of the same condition:—

Philip B., aged thirty-six, shoemaker, was admitted into St. Mary's, under the care of Dr. Chambers, November 9th, 1855. He had not been in health for nine years, suffering from what he called "spasms in the chest"—that is, pain across the epigastrium, and irrepressible paroxysms of belching. The pain in the epigastrium was always increased imme-

diately after taking food, and was accompanied by a great secretion of gas. When he could get off some of this by eructation the pain somewhat abated; but the eructations would sometimes continue as long as three hours. During the last nine months he had become emaciated, and felt a good deal of universal debility. The urine was smoky-coloured, of the specific gravity only of 1.010, though natural in quantity, and free from albumen; the sleep was broken; the appetite good. He stated that unless he took purgatives his bowels would remain unopened for a fortnight together. Philip's first medicine was bismuth and iron. But the iron did not seem to agree with him; he got into a feverish catarrhal state, and had sore-throat. During this attack he was kept in bed, had six leeches, and afterwards a blister applied on the epigastrium; he took a quarter of an ounce of castor-oil occasionally. All this time, however, he was gaining flesh; so that between the 27th of November and the 10th of December, he had gained four pounds in weight; and the urine was increasing in specific gravity, so that by the 1st of December it was 1.028, but was a little cloudy from lithates. After the acute febrile symptoms had abated he received much comfort from the following draught three times a day:—

℞ Misturæ rhei co., fʒj.
Tincturæ opij, ℥v.
Acidi gallici, gr. v.

He left on December 13th much improved in health and spirits.

In this instance it will be seen that the evil was much more ingrained by time, and the symptoms were worse, and more difficult of relief, in proportion to the greater time it has lasted. The intention of the draught was to soothe the over-sensitive nerves with the opium, at the same time that the gallic acid astringed the mucous membrane, and restrained the over-secretion of mucus, which the patient's general catarrhal diathesis otherwise displayed rendered probable to be present in the stomach. The rhubarb, Dr. Chambers thinks, was designed to prevent constipation arising from the other ingredients. As a rule, Dr. Chambers likes aloes best for that purpose in gastric cases, and he does not know why he ordered rhubarb here.

ART. 44.—*Hepatic Abscess simulating Abdominal Aneurism.*

By WILLIAM MOORE, M.D., M.R.I.A., Physician to Mercer's Hospital; Vice-President of the College of Physicians, and Lecturer on Practice of Medicine, &c. &c.

(*The Medical Press and Circular*, January 23, 1867.)

The details of the following case are given by Dr. Moore:—

Maria N., aged twenty-eight, a dressmaker, of admittedly intemperate habits, was brought to the hospital in June last. About ten days before she applied for admission she felt what she described as a "throbbing lump" in her stomach. She also suffered from palpitation, short dry cough, constant pain in the back, which radiated towards the stomach, from rigors, night sweats, obstinate vomiting, especially after eating, and from total loss of appetite.

On examination, we found a tumour about the size of a hen's-egg occupying the epigastric region. This tumour pulsated, and on applying the stethoscope over it a bruit could be heard which was lost in the upright position. Moreover, place the patient in what position you pleased, the pulsation was continuous. To test this we made the patient get on her hands and knees, still the pulsation remained, and this is a point worth special attention, for, as I hope to show by-and-by, the presence or absence of pulsation in this position is an important link in the differential diagnosis between hepatic abscess and abdominal aneurism. However, to resume, there was dulness over the hepatic region generally, and over the anterior and inferior region of the right side, where respiration was indistinct. The menstrual functions were regular, and the bowels free. After the patient had been a few days in hospital jaundice supervened. Now, the treatment we employed in this case was the effervescent saline mixture, with hydrocyanic acid, with the view of relieving the great irritability of the stomach. Ice was applied over the tumour, which was afterwards painted with a strong tincture of iodine, whilst five-grain doses of iodide of potassium were given in decoction of taraxacum three times a-day. Under this treatment the tumour, at the end of a month, had sensibly diminished, and the pain in the back and other symptoms had abated. At the end of six weeks the tumour could not be felt, and the girl's health was so much improved that she left the hospital, a faint tinge of jaundice only remaining.

Now, this patient was sent to the hospital supposed to be suffering from abdominal aneurism, and, I confess, the first look at the case inclined me, as it did several gentlemen to whom I showed it, to arrive at the same conclusion, but a more careful examination shook this belief. As regards the pain in the back and jaundice, both these general symptoms might tally with abdominal aneurism; so might the vomiting and irritability of the stomach if the enlargement of the vessel came in contact with that viscus; but, in addition, we had rigors and night sweats, symptoms never found necessarily associated with aneurism, and which were of especial value as pointing to the formation of matter somewhere.

Next, as to the especial character of the tumour itself. It was about the size of a hen's-egg, slightly flattened, and occupied the situation usually allotted to aneurisms of the abdominal aorta, whilst its pulsation was diastolic and eccentric. These special points, for so far closely resembling the signs of aneurism, tended to embarrass the diagnosis, and the presence of a bruit in the supine position, which became lost in the upright, still further obscured the case.

But there was one point which came to our relief, and that was the partial modification of the impulse by pressure on the tumour towards the right side. If with this important sign we had found absence or diminution of the impulse when the patient was placed on her hands and knees, the diagnosis would have been comparatively clear, for you will readily see that when a patient is placed in this position, an hepatic abscess or other non-adherent tumour falls forward from the aorta, and thus pulsation is lost, but in this instance there must have been some adhesions between the under surface of the liver and the great vessel which afforded a medium of pulsation. After some time, and giving

due weight to the character of the constitutional disturbance in general, and to the modification of the impulse by pressure in particular, we arrived at the conclusion that the case was one of hepatic abscess, occupying the left lobe of the liver.

You may naturally ask me how did the contents of the abscess, which were of no trifling amount, disappear so stealthily as they did, and so favourably, and is this the usual way in which hepatic abscesses are disposed of?

The abscess may make its way through the thoracic or abdominal wall; in the latter case it usually points below the ensiform cartilage of the sternum, or it may point through an intercostal space, and eventually burst.

The abscess may burst to the stomach, and if so the rupture is followed by purulent vomiting or pus in the dejections or both. Should the abscess open into the intestinal canal, the symptoms are usually ill-defined, but the patient's attention may be arrested by the sudden subsidence of pain, and rupture into the peritoneum is in almost every instance followed by speedy dissolution. On the other hand, should the pus make its way into the bronchial tubes, this contingency is usually preceded by symptoms of pneumonia, as dulness on percussion, bronchial respiration, and rusty sputa, and when the rupture *actually* occurs copious purulent expectoration follows, even pure bile may occasionally be spat up. Again, should the right pleural cavity be the receptacle of the abscess, the symptoms of ordinary empyema are set up, but rupture into the pericardium is an event of very rare occurrence, and when it has occurred, has been attended with a rapidly fatal termination.

Now, in the case before us, we have no positive proof that the abscess took any of these courses above mentioned; it might have opened into the intestinal canal or bile duct, and thus have been disposed of, but if so, I am inclined to think there would have been some more sudden and decided remission in the symptoms than what took place, and I think the pus in the dejections could scarcely have escaped us.

To be plain with you, I am at a loss to account for the exact *modus operandi* by which so gradual and favourable a termination was brought about in this unpromising case. Frerichs tells us that under favourable circumstances the suppurative process is arrested, the pus undergoing a retrograde metamorphosis, and thus the abscess gradually is reduced in size and cicatrizes, the symptoms steadily disappearing, and this seems to me the most feasible way to account for the disposal of the abscess in the present instance.

ART. 45.—*Case of Enlargement of the Spleen after Ague :
with Clinical Remarks.*

By Dr. MURCHISON.

(*British Medical Journal*, February 16, 1867.)

The chief interest about the following case, is its having furnished the text for some very good clinical remarks by Dr. Murchison, of which we here subjoin a summary:—

William D., aged forty-nine, labourer, was admitted into the Middle-

sex Hospital, December 21st, 1866. His mother died of dropsy; father dead; family very healthy.

Previous History.—He had an attack of ague when a child, a second attack when thirty years old, and three others since, all tertian, except the last, which occurred three years ago, and was a case of dumb ague. The attacks were all slight; he went to work in the intervals between the shivering fits. He was treated by quinine. Five years ago his left leg became ulcerated over an old fracture of the tibia of five years' standing, which had, however, given him no trouble after the bone had united. Three years ago he was in Guy's Hospital for abdominal dropsy.

Present Illness.—He was in his usual state of health until December 14th, on the evening of which day he was attacked with general pains of a very severe character; headache; repeated and short shiverings; thirst; complete loss of appetite. Bowels regular. These symptoms continuing, he was sent to the Fever Hospital on the 15th. On the following day the rigors continued until the afternoon, when they left him to a great extent, without being followed by heat or sweating. These symptoms since gradually became less and less, and he now felt perfectly well.

State on Admission.—The patient was stout; complexion sallow; skin warm; temperature $97^{\circ}\cdot4$; abdomen large; girth at umbilicus 39 inches, and two inches above this 40 inches, in the lying posture. There was a healthy ulcer, healing, over the middle third of the left tibia, with œdema of the leg and foot below. The pupils were moderately dilated. The tongue was rather florid, covered with a thin white fur; appetite good; bowels opened twice to-day, loose; pulse 72. Heart-sounds muffled; abruptness of diastole. Respiration 16. He had a slight cough. Percussion over the back was rather wanting in resonance. The breathing in the left back was not good; on the right very distinct; in front of the chest, normal. The abdomen was large, and generally tympanitic, more or less, except over a large part of the left side, where a hard and smooth tumour was distinctly felt, extending within four inches of the mesial line, and measuring in the infra-axillary line $6\frac{1}{4}$ inches from the eighth rib to within one inch of the crest of the ilium. Liver-dulness extended from the lower border of the fifth rib in the vertical line of the mamma; below, the limit of dulness could not be made out definitely. On microscopical examination of the blood there was found none or little abnormality as regarded consistence or globules. The urine was clear, of normal colour; specific gravity 1021; no albumen; it effervesced slightly on addition of nitric acid when heated.

The tumour above referred to corresponded to the region of the spleen, which measured perpendicularly, in a line with the anterior spinous process of the ilium, seven inches; and two inches behind this, in a perpendicular line also, eight inches, when the patient was lying on the right side. When lying on the back, the anterior angle of the tumour was in a line with the left nipple, and four inches from the umbilicus.

He was ordered to take the following mixture three times a day:—
 \mathcal{R} Sulphatis ferri, quinae sulphatis, aa. gr. j; acidi sulphurici diluti, $\mathfrak{m}\text{x}$; strychniæ sulphatis, gr. $\frac{1}{30}$; haustûs menthæ piper. $\mathfrak{z}\text{j}$. M.
 And to have ointment of iodide of mercury rubbed in over the enlarged spleen.

The patient improved considerably, and the tumour had diminished in size notably, when, on the 23rd, he had to be discharged for misconduct.

Clinical Remarks.—Dr. Murchison prefaced by stating that, when examining the spleen, it should be borne in mind that the long axis of the organ is nearly horizontal in the living body, not vertical as in the dead, although its anterior extremity is little more depressed than the posterior. Enlargement of the spleen is usually uniform, and the fissures which normally exist in its anterior margin become exaggerated; but this nodulation does not indicate malignancy.

Enlargement of the spleen may be simulated by several morbid conditions, of which the following are the principal:—

1. A cancerous tumour of the large end of the stomach, especially if there be no vomiting, as in a case recorded by Dr. Bright in his memoir on *Abdominal Tumours*. This condition may be recognised by the general symptoms of cancerous cachexia, and chiefly by the occasional absence of, and the variation in, dulness on percussion.

2. Enlargement of the left lobe of the liver may be made out by the swelling being continuous with the liver, and by the derangement of the hepatic functions.

3. An enlarged and moveable kidney is known by the greater degree of mobility of the mass, and by its going downwards and backwards when replaced. A more important distinction is this: that, if the patient be examined frequently, a tympanitic intestinal note will be sometimes obtained on percussion.

4. An ovarian tumour may be diagnosed by the history of the case, by the growth of the mass from below, by its having less uniformity and less density, and by a vaginal examination.

5. Accumulation of fæces in the descending colon and the left part of the arch of the colon is mainly distinguished by means of careful percussion, which shows an absence of uniform enlargement upwards in the splenic region, and by the sensational palpitation, by a doughy feel, characteristic of this condition. The administration of purgatives and injections will, besides, clear up all doubt.

6. In cases of omental or retro-peritoneal tumour, which may be tubercular or cancerous, there is absence of enlargement upwards beneath the ribs.

7. Aneurism of the aorta, as in a case which occurred lately in the Middlesex Hospital, may be diagnosed by the presence of pulsation and aneurismal *bruit*, in the great majority of cases. There will also be indications of pressure on the vertebræ and the neighbouring organs, producing, in some cases, paralysis of the lower extremities or of some of the spinal nerves.

8. In chronic abscess of the abdominal parietes, as in a case recorded by Dr. Bright, the main points of distinction are the more superficial character of the swelling and its less defined outline.

When it has been clearly made out that there is actual enlargement of the spleen, the next point is to ascertain, if possible, the cause of this enlargement. Now there are six main causes giving rise to an increase in the size of the spleen:

1. A mechanical impediment to the systematic circulation, as in heart-

disease, or to the portal, as in cirrhosis and other forms of chronic atrophy of the liver. In heart-disease, especially when the tricuspid and mitral valves are affected, the spleen enlarges in the earlier stages; but when the complaint is chronic, the thickening of the capsule and the hypertrophy of the fibrous matrix prevent any great increase in size of the organ.

2. Diseases from blood-poisoning generally give rise to splenic enlargement—*e.g.*, ague, typhoid, remittent, and scarlet fever, and pyæmia. This is recognised by the symptoms of the primary disease, and the subsidence of the enlargement on the disappearance of the primary disease.

3. Simple hypertrophy, which occurs under two forms: (*a*) ague-cake; (*b*) simple hypertrophy in leukæmic persons. The former of these is made out by the history of the case, the patient having had repeated attacks of ague or lived in an ague country; and the white corpuscles of the blood are only slightly increased. Ulcers of the legs are very common in such cases, and the fact was well known so far back as Aræteus. The probable explanation of their occurrence is, that wounds do not heal readily in individuals with enlarged spleen, and, from slight causes, troublesome sores may be produced. The result of treatment also points to the nature of the case. At Netley Hospital, a combination of the phosphates of quinine, iron, and strychnine has been found to reduce the size of the spleen, coupled with the rubbing in of the ointment of the red iodide of mercury. In leukæmic enlargement, the spleen attains a very great size, sometimes filling up the whole abdomen; and it has been known to weigh after death, in such instances, eight or ten pounds. The characters of anæmia are then well marked. When examined under the microscope, the blood is found to contain an exceedingly greater number of *white* than of *red* corpuscles, while the patient is liable to hæmorrhages, chiefly nasal and buccal; sometimes, however, pulmonary and intestinal. Ascites is often present, and diarrhœa also.

4. The spleen may be affected with waxy or amyloid degeneration. This may be recognised by the physical signs of a similar disease existing in the liver. The urine also presents characters of importance, because the kidneys are also affected: thus, the patient passes a greater quantity of urine than normal, containing a considerable amount of albumen, while there is no dropsy, past or present. Sometimes, some of the cast-off renal cells give an amyloid reaction. The patient is troubled with vomiting and purging; the latter symptom being due to amyloid degeneration of the coats of the intestine. There is generally a history of syphilis, or of caries of bone, or of some long-standing purulent discharge.

5. There may be embolism, gangrene, or tumours of the spleen. In the embolism, the splenic enlargement is seldom very great, the organ rarely projecting beyond the margin of the ribs, and there are pain and tenderness on pressure; valvular disease of the heart may be also made out. In gangrene of the spleen, as after typhoid fever, there is very rapid sinking.

Lastly, cancer, hydatids, and occasionally tubercle, may cause enlargement of the spleen. Cancer of the spleen is rarely primary. Hy-

datids, when occurring in the spleen, are generally but not always secondary to hydatids in the liver. They are recognised by the want of uniformity of the swelling, which bulges out in one direction, and by the absence of all symptoms in the early period of the history.

ART. 46.—*A Case of Ascites Treated successfully by Iodine Injection.*

By M. DE DARVIEU.

(*Mémoires de la Société des Sciences Médicales de Lyon*, 1865-66.)

The subject of this report was a man of forty years of age, thin, though of a good constitution. He came under the care of Dr. Guyénot on October 6th, 1865, and was then suffering from ascites. The following is the history of his disease:—

He had led a regular life, and had always been temperate in his habits. In the month of March, 1865, he was, when in full health, attacked with slight rigors, and for three days could not keep himself warm.

He was afterwards affected with nausea and loss of appetite, frequent desire to defæcate without passing much at the stool, smarting of the anus, and pains in the epigastrium. The phenomena did not continue long, but in the course of fifteen days the abdomen enlarged considerably. When first seen by Dr. Guyénot there were manifest signs of abundant abdominal effusion, and all the symptoms of ascites were present. The patient's countenance was pale, and his eyes were to a slight extent encircled by dark rims. The skin was cool and dry (it was learnt that perspiration had been suppressed for a long time). The urine was scanty and limpid. Heart's action was normal, no blowing sound could be heard in the veins of the neck. The breathing was free, although the man had a slight cough, accompanied by expectoration of a frothy, sero-mucous fluid, and auscultation revealed some dispersed mucous râles. There was no emphysema. The ankles were slightly œdematous, but the patient states that the swelling did not appear until two months after the commencement of the ascites. The urine was frequently examined, but no albumen was ever detected.

In diagnosing the nature of this disease, Dr. Guyénot at once rejected albuminous nephritis, tubercular disease of the mesenteric glands, and impeded circulation, as causes of the dropsy. Nor was it likely to be the consequence of anæmia or any particular blood-disease favouring serous effusion; for the man's history would not have supported such theories, and the dropsy was confined to the abdominal cavity. At first sight the ascites seemed to have been produced by cirrhosis of the liver, but against this view were the facts that the patient was a temperate man, and had never partaken but sparingly, and at long intervals, of alcoholic drinks, the absence of those frequent bleedings which are met with in liver disease, and the freedom

of the urine from any ammoniacal deposit. The subcutaneous veins on the front of the abdomen were, it is true, enlarged; but Dr. Guyénot holds that this supplementary circulation was not produced by the development of that vein which, according to MM. Robin and Sappey, carries the blood of the vena porta into the epigastric vein, and thence into the vena cava inferior; but was, on the other hand, formed by a direct anastomosis between the small veins of the anterior thoracic wall and the epigastric vein, by which anastomosis the blood of the lower limb is carried into the superior vena cava, the lower vena cava being compressed by the intra-peritoneal effusion.

After a careful consideration of the history of the disease, it was diagnosed as ascites consecutive to sub-acute peritonitis. The primary inflammatory phenomena had passed away, and nothing remained but the dropsy.

Treatment.—Diuretics, and drastic and saline purgatives were given by turns, but by the 26th of October the abdomen had increased very much in size and tension. On that day tapping was performed, and an examination made under the more favourable conditions. Nothing positive, however, was made out. There flowed away through the tube a lemon-coloured serous fluid, which contained some small whitish clots, the presence of which proved that inflammation of the abdominal serous membrane had been an element of the disease, and thus the diagnosis was confirmed. Towards the end of the operation the patient was placed upon his side, and as much fluid was withdrawn as could possibly be pressed out while the man was in this position. The following injection was then introduced into the peritoneal cavity:—

| | |
|-----------------------------|-------------|
| Tincture of iodine | 30 grammes. |
| Iodide of potassium | 6 |
| Distilled water | 150 |

This was left in. In a few minutes the man was seized with acute abdominal pains, and had a strong erection. When visited in the evening, his face was pinched, the pulse very small, 180; on the same morning it was 80. The pains still persisted, although they were not so severe. The temperature was not excessive. No pain in the epigastrium; no very great hunger or thirst; no feeling of heat or acridity in the gullet; no nervous disturbance; in fact nothing that could be referred to iodism.

On October 28th the pains had ceased; the pulse was 110. No symptoms of iodism.

On November 13th no bad signs were present. The pulse was 80. Abdomen was painless on pressure. Bowels had not been moved since the day of operation.

On November 15th the patient was discharged cured. He was seen again on the 25th, but there were no signs of any reappearance of the ascites.

At the date of the reading of this memoir, late in the year 1866, the patient was quite free from disease.

ART. 47.—*On the Treatment of Saturnine Neuroses by Cold applied Internally and Externally.*

By M. MONNERET, Paris.

(*Gazette des Hôpitaux*, No. 43, 1867.)

In an interesting lecture delivered at the Hôpital de la Charité, M. Monneret stated that he had ceased to treat the nervous affections caused by lead-poisoning by evacuants. The principal symptoms he considers are due to affections of the nerves both of motility and sensation, and he thinks that the rational treatment of these is the application of cold *intus et extra*. Cold influences very actively the nervous system, either directly or through the capillaries, and modifies the secretions. M. Monneret gave the following details of his treatment of lead-poisoning at the Hôpital de la Charité, where a great number of cases of this affection are admitted:—

“As soon as the patient comes under my notice I prescribe for him some cold iced drink, lemonade for example. This drink is very agreeable, it is not rejected, and is adapted to the patient’s habits, whether temperate or the reverse; occasionally I add some wine. At the same time I order three cold-water enemata to be administered to the patient every day; it is necessary that the injections remain as long as possible in the rectum. In addition to the cold drinks and injections, the patient is subjected to the water-cure twice a day, morning and evening, and sometimes again at noon; in some cases douches with large or small jets are applied, but these should not last longer than a minute. The douches stimulate the peripheral bloodvessels and cause them to contract, the course of the blood is arrested, the vessels afterwards dilate, and even enlarge, the skin is reddened, sometimes the activity of the glands is increased, and a light perspiration covers the skin. The effects of the water-cure are well marked and very active, and it can be easily understood how the vitality of the tissues may be renewed. To these different means I add the application of a cold cataplasm to the abdomen so as to produce continuous refrigeration. I will describe to you, gentlemen, the manner of making a cold cataplasm. You take a linen cloth of sufficient size, and upon this is spread as much dry linseed-meal as will form a layer of about one centimetre in thickness. Here and there in the linseed-meal you then place pieces of ice of the size of a hawk’s egg, another stratum of linseed-meal is placed over these, the whole is then enclosed within the cloth and applied to the abdomen. Under the influence of the heat of the body the ice melts gradually, the water mixes slowly with the meal, so that at the end of three hours the cataplasm is still cold. I use this powerful application, not in cases of lead colic alone, but in other diseases where the action of cold is required, as in peritonitis and typhoid fever. This manner of applying cold is, in my opinion, preferable to that of using bladders containing ice, which are sometimes so painful that they cannot be supported by the patient. By a treatment carried out in the manner I have just described, you will very quickly mitigate the affections caused by lead-poisoning. In my

practice it has produced rapid effects; and I can say that in the forty cases observed by me, with two exceptions, all the nervous disorders disappeared as by enchantment."

M. Monneret states that lead-poisoning is a general disease affecting the blood chiefly and directly, and revealing itself by very distinct anæmia. He refers to four patients under his care in the hospital who presented all the characters of this anæmic condition, as vascular souffles, a peculiar colour of the skin, &c. Sometimes there is functional disturbance of the liver, and also symptoms of functional lesions of the kidney, lesions of the bladder, various nervous affections, and morbid changes in the nervous system. According to M. Monneret, the blood-corpuscles are diminished in number, and this change in the state of the blood he considers to be the fundamental fact of lead-poisoning. For these reasons cold and the water-cure are in every way adapted to the treatment of lead-poisoning; the method is one of the most powerful of those included within the plan of treatment that is called tonic; but at the time that it is employed wine, preparations of steel, and quinine should be given.

In concluding his lecture, M. Monneret gives it as his opinion "that cold applied *intus et extra* in cases of lead-poisoning not only acts powerfully as a palliative, but may be regarded up to a certain point as a powerful curative agent, which, by acting upon the capillary blood-vessels and upon the vaso-motor nerves, brings into play the normal secretory and excretory processes, and by re-establishing these functions gives them power to remove quickly from the organism the serious effects of that poisoning which manifests itself chiefly in severe disturbance of the nervous system. It is by restoring to the tissues a great part of their activity and molecular actions that cold is a pre-eminently curative agent."

ART. 48.—*Clinical Remarks on Diarrhœa and Vomiting,
the result of Renal Disease.*

By GEORGE JOHNSON, M.D., F.R.C.P., Physician to King's College Hospital, Professor of Medicine in King's College, &c.

(*British Medical Journal*, April 27, 1867.)

In speaking of the management of the troublesome gastro-intestinal symptoms which so commonly occur in the advanced stages of chronic renal disease, Dr. Johnson says, "bearing in mind the fact that the vomited matters are usually very offensive, if you direct your patient to take copious draughts of tepid water, he will often obtain relief from his nausea by the speedy expulsion of the foul secretions and the thorough washing out of the stomach.

"The relief afforded by this simple cleansing process is analogous to that which is experienced by a patient whose bladder has been washed free from foul mucous and fetid ammoniacal urine. In both cases, the cleansing has to be repeated from time to time.

"The food must be of the lightest and most digestible kind. The process of digestion may be aided by a dose of fifteen or twenty drops of dilute hydrochloric acid with each meal, and to this may sometimes be added with advantage the thirtieth part of a grain of strychnia. The mineral acid neutralizes the ammonia which is often thrown off abundantly, and which tends to render the secretions of the stomach alkaline or only feebly acid, and strychnia is certainly a most valuable gastric tonic. Other vegetable bitters may be substituted for this; but they are less efficacious. A glass of champagne is sometimes a grateful and wholesome stimulant with the food.

"In some cases, vomiting may be best relieved by a purgative enema, or by stimulating the lower bowel by the compound colocynth pill, if the stomach will retain it. In not a few of these cases, the irritability of the stomach is excessive, and vomiting occurs with far greater frequency than is required for the expulsion of its morbid contents. In such cases, the excessive irritability may sometimes be allayed by constantly sucking lumps of ice. In other cases, I have seen the occasional inhalation of a small quantity of chloroform vapour afford great relief, or a few drops of chloroform may be swallowed from time to time with mucilage. A mustard poultice on the epigastrium sometimes has a good effect. In this class of cases, such remedies for vomiting as creasote, hydrocyanic acid, &c., are, according to my experience, quite useless. When the vomiting is incessant, nutritive and stimulant enemata often afford great relief and comfort; and, indeed, they are absolutely essential to prevent fatal exhaustion when the normal functions of the stomach are so entirely suspended as they commonly are in these painful cases.

"As the irritability of the stomach may be excessive, so may be, in some cases, the irritation of the bowels; and we may sometimes endeavour to allay tenesmus *by the very guarded use of opium*. With this view, ten or fifteen drops of laudanum may be given in an enema, or half a grain of opium with a grain of ipecacuanha in a pill, the effect being carefully watched, and the dose repeated or not according to circumstances. I warn you of the great danger which attends the incautious employment of opium in these cases. Bear in mind that the object of the opiate is to soothe; to allay irritation, and not close a safety valve; and, remembering this, you are not likely to err.

"The gastro-intestinal symptoms will be mitigated if, by any means, we can increase the secretory action of the kidney. Amongst the means which may be usefully employed with this end in view are, counter-irritation over the loins, either by dry cupping or by mustard and linseed poultices; hot-air baths to stimulate the functions of the skin, and thus to lessen the work and the congestion of the kidney; and, as a diuretic, the imperial drink, made of cream of tartar and lemon, may be taken liberally, and rendered more diuretic by the addition of a small quantity of gin.

"When there is much anasarca, an incision into each leg is often followed by great relief; the fluid is rapidly drained away: then, the vessels being partially unloaded, the circulation through the kidney, as through every other organ, becomes more free; there is, consequently, a more copious secretion of urine; and thus the gastro-intestinal symp-

toms which resulted from uræmic contamination are indirectly relieved. The result of my experience is that, in cases of anasarca, inflammation rarely follows puncturing of the legs when the dropsy is simply renal and not complicated with obstruction of the circulation by valvular disease of the heart. The relief which follows the operation is often very great."

ART. 49.—*Intestinal Obstruction.*

By WILLIAM BRINTON, M.D., F.R.S.

(*Intestinal Obstruction*, 1867.)

The following is a summary of the treatment suggested by Dr. Brinton, in his valuable *brochure* for the several forms of obstruction:—

In intussusception of the large intestine, repeated injections of liquid into the rectum, so as to distend the bowel to its utmost dimensions.

In stricture of the large intestine, the institution of an artificial anus above the obstacle.

In obstruction from bands, diverticula, &c., mostly affecting the small intestine, gastrotomy, and division of the cord-like cause of strangulation; a procedure which, if interrupted by unforeseen impediments, may further require the institution of an artificial anus in the most distended part.

In obstruction by stricture, however, a tobacco enema should be administered at least once; a measure which should be repeated, if need be, in obstruction by bands, and especially by gall-stones.

In all cases, opium and support to be freely administered from the earliest stage of the malady. The bulkier liquid constituent of the food to be given as sparingly as possible by the mouth, but administered freely per anum. Distensive enemata to precede all operations, if only as a means of aiding or assuring diagnosis. Where vomiting is excessive, nourishment to be also injected into the rectum in small and frequent doses.

After recovery, all food which can introduce indigestible substances into the intestine should be carefully avoided; the bowel having sometimes undergone changes of calibre and arrangement such as permit substances easily transmissible through the healthy canal to cause fatal obstruction.

The following case, the details of which are given by Dr. Buzzard, illustrates very well the advantage belonging to the kind of treatment which is advocated in the above work:—

CASE 1.—Elizabeth A., widow, aged forty, laundress. On the evening of April 8th, 1857, after an unusually hard day's work at the wash-tub, she was suddenly seized with a very sharp griping pain across the belly, followed, a quarter of an hour afterwards, by vomiting. Her bowels had been opened in the morning. The pain continued almost without intermission, and she vomited after every description of food up to the time when Dr. Buzzard first saw her, which was on April 10th, at 7 P.M. She then lay on her back,

with the knees drawn up. If she turned on either side vomiting immediately occurred. The pain, which had rather increased than diminished, she referred to the region of the navel. Her face had an extremely anxious appearance, and was bathed with perspiration. The pulse was 128, and feeble; the act of coughing only slightly increased the pain; her belly was somewhat swollen, generally resonant on percussion, in the neighbourhood of the navel being absolutely tympanitic; it was soft and flaccid, and not tender upon pressure; the vomited matter at that time consisted of a brown fluid, with flocculi of the same colour, of a sour and very offensive but not feculent odour; the tongue was dry and chipped; her bowels had not acted for sixty hours; there was no hernia. She was ordered to take half a grain of crude opium every four hours, and a teaspoonful of good beef-tea very frequently.

April 11th.—Pulse, 114; has slept but very little during the night; pain less severe; her head aches, and she feels bewildered; she has not vomited quite so much, but she complains greatly of the horribly offensive taste of the ejecta; her tongue is tolerably moist, and slightly furred at the base; skin warm and covered with perspiration. To continue the opium, &c.

12th.—Pulse 90; pain not quite so sharp; bowels still unrelieved; the vomited matters, she says, are still more filthy to the taste; her tongue is dry and chipped; belly more humid and resonant. Continue opium.

13th.—Pulse 98, more full and bounding; tongue red and chipped, moist at the tip, slightly furred, and yellow at the sides and base; vomiting continues. The fluid thrown up is now yellowish-brown in colour, and decidedly feculent; this change occurred at noon to-day. She has not slept at all; she feels certain that she cannot recover. Continue treatment.

14th.—Pulse 96, feeble and jerking; tongue tolerably moist and chipped, the feculent vomiting still continues; the pain, she thinks, is not quite so bad as it was; she feels very sleepy, but cannot sleep.

At 7.30 p.m. Dr. Buzzard learnt that she had passed a motion, which he did not see, as it had been thrown away. Her tongue is now very red; the pain is decidedly lessened; she has vomited but little during the day, and not at all since she had the evacuation; she feels dreadfully weak. Continue opium and beef-tea.

15th.—Pulse 100, quiet and good; tongue not so red, more moist, slightly furred at the base; has only vomited twice since last seen, and then the quantity thrown up was small, and not quite so offensive; she complains of tenesmus. Continue opium, &c.

Evening.—Pulse 90; has had two motions during the day, copious, slate-coloured, and semi-fluid; has not vomited.

16th.—Pulse 108; has had another motion, consisting of thick, creamy fluid, of brownish-yellow colour, containing small lumps of feculent matter; pain now much less severe; tongue red and moist; does not sleep at all; feels dreadfully stupid and lifeless; there is great soreness and sensation of bruising all over the belly; there is great difficulty in swallowing, accompanied by pain in the throat and pit of stomach, extending through to the back between the shoulders; her urine, which is abundant, scalds her; skin cool; does not vomit at all. Discontinue the opium; take beef-tea, arrow-root, and milk.

17th.—Pulse 104; tongue moist; fears she is not getting on well; great pain in her chest when she swallows anything; pain of a tenesmus character in the belly; bowels have been moved four times during the last twenty-four hours. She scarcely ever sleeps.

18th.—Pulse 114; tongue red, moist and clean, has slept but very little; she says that as soon as her eyes are closed she has a sensation of everything

whirling about ; bowels have acted three times ; motions fluid, of a dark brown colour : swallowing not quite so bad ; her speech is rather thick, and she feels "tipsy."

19th. — Pulse 104, full ; tongue red and moist ; she slept rather better last night ; took some broth to-day, with a very small piece of mutton ; her swallowing is improved ; she seems less confused ; early to-day had a motion like the last described ; does not vomit.

20th. Pulse 100 ; still improving in every respect.

21st. Pulse 102 ; very low-spirited ; her bowels have been very much relaxed all night ; has now no pain in the belly. After this she continued to improve daily, and on April 25th she had completely recovered.

Dr. Buzzard remarks that no accurate diagnosis with regard to the seat of obstruction was made in this case, and the patient's recovery necessarily leaves the matter in doubt. The rapidity with which vomiting succeeded the occurrence of sudden pain, and its long persistence, point, he thinks, to the lower part of the small intestine as the probable seat of an invagination which terminated by natural resolution. No purgative was administered to this woman throughout her illness. She took opium at four hours' intervals for six days ; under its influence she scarcely ever slept, but the bowels were relieved for the first time on the seventh day of the attack, and afterwards acted copiously without assistance.

In another case related by Dr. Buzzard, the patient took sixty grains of opium in the course of ten days ; whilst under its influence his bowels were moved nineteen times.

In the third and last case mentioned by Dr. Buzzard, there was a longer continuance of constipation ; the bowels were confined for fifteen days ; the vomiting, which was most constant for the first three days, then declined, and only a little retching occurred occasionally. Ninety grains of opium were taken by this patient in the course of her illness ; no purgative was administered.

ART. 50.—*Cases of Intestinal Obstruction, illustrating the Value of Opium as a Remedy.*

By W. H. SANDHAM, M.R.C.S., Cork.

(*The Medical Press and Circular*, January 16, 1867.)

"Mr. F., aged twenty, healthy constitution, residing four miles out of Cork, suffered two months since from intestinal obstruction ; it yielded to ordinary treatment in about thirty-six hours. *Second Attack.*—At 4 o'clock A.M., on December 3rd, I was again sent for, and found him after taking a cup of salts and senna and a large dose of castor-oil without any purgative effect. He complained of pain at the head of the colon and vomiting. There was no hernial tumour or other systemic disturbance ; pulse soft, full, and 80. I administered a large turpentine and assafoetida enema ; left him two pills, cal. gr. iij, opi gr. j, to be taken every four hours, followed by a glass of salts-and-senna mixture every hour ; of this he drank 8 oz. ; no effect.—Friday 4th, 10 A.M.

Still in pain; bowels above the obstruction tympanitic; tenderness limited to seat of obstruction. Gave three dops of croton-oil, two turpentine and one tobacco injection this day. I remained with him this night. At 1 o'clock, being still in pain and rejecting everything, I determined on giving up purgatives by the mouth, and adopt the soothing plan; pulse, tongue, and heat of skin were normal. I put him on poppy stupes and two grs. of opium every two hours; vomiting and pain ceased immediately after second pill. I then put him on one gr. of opium every three hours.—Saturday, 5th. No vomiting and little pain; system undisturbed; used large enemata morning and night; continued opium.—Sunday, 6th. About 2 o'clock this morning he complained of inability to micturate, and his father becoming uneasy called in Dr. Edward Townsend. I preceded Dr. Townsend, and administered a large enema through an œsophagus tube with a stomach-pump. He passed water without catheterism. Dr. Townsend added to my opium pill two grs. of calomel every three hours. Immediately after taking the second pill severe bilious, almost black, vomit set in. At my evening visit, 8 P.M., I omitted the calomel, and put him again on opium alone; *vomiting at once ceased*; used enema nocte-manuque.—Monday, 7th, 8 A.M. Found him tranquil, and pulse full, soft, and 74; not much abdominal tenderness, but tympanitic to such an extent as to define the transverse colon and stomach; gave large enemata; in fact, pumped away until he could contain no more, when mechanical distension alone caused it to pass off; no effect. At half past four P.M. Dr. Townsend and I administered enemata as before, and added two grs. of aloes to the opium pill every three hours, and a glass of salts and infusion of roses, alternating with pill; to be stuped often, and have fowl-broth and arrow-root; took some of the pills and most of mixture; no effect.—Tuesday, 8th, nine o'clock A.M. Dr. O'Connor and I saw him, Dr. Townsend being fee'd off. We administered a copious enema, containing turpentine, oil, assafetida, soap, and common salt, and to the opium and aloe pill of Dr. Townsend and myself, we added one-twelfth of a grain of strychnine every three hours. Six P.M. I saw him; used usual enemata, and continued pills. Up to this no systematic disturbance whatever; pulse 64.—Wednesday, 9th. Tranquil; no vomiting; considerable tympanitis; enemata, stupes, &c., as before; ceased pills and ordered half oz. castor-oil and twelve \mathfrak{m} tinct. opium every three hours; took them through the night; had a good night, and towards morning three liquid stools, like portions of the injections.—Thursday, 10th. Dr. O'Connor and I concluding the bowel was about to resume its functions, omitted enemata, but continued oil draught, two in the day. Dr. O'Connor fee'd off. Six P.M. He took the two oil draughts; no alvine effect. I gave him a large soap enema, and he passed some scybalous matter, small in amount, two oil draughts during night. He this evening craved for food, and said he "felt satisfied some change had taken place." His abdomen was still very tympanitic, and whatever there was of tenderness was now over the sigmoid flexure of the colon, in the groin opposite that first pained.—Friday, 11th, A.M. Three liquid stools; had fine night. To have tea and toast, beef-tea, arrow-root. Is in good spirits; swelling and tympanitis better. Six P.M. Had two feculent discharges, but none since taking seidlitz powder at three o'clock;

gave soap injection. He passed a large quantity of broken-down fæces, complains of painful tenesmus, eats with a liking; region of stomach and transverse colon still tympanitic; no pain on pressure anywhere over abdomen.—Saturday, 12th, ten A.M. Good night; took seidlitz powder at six A.M., followed by two satisfactory stools; gave soap enemata, followed by another satisfactory result; feels much better; tympanitis greatly abated.—Sunday, 13th. Better; another enema satisfactory.—15th. Soap enema again satisfactory. Fee'd off.

“*Mr. F.'s Third Attack.*—On the 18th of February, 1865, again called in. Dr. O'Connor was four days in attendance, and during that period he used cal. and opium, salts-and-senna mixture, stupes and enemata, without effect. We agreed to treat him on the same principle as on the second attack—namely, avoiding purgatives by the mouth, and administering grain-doses of opium every four hours, with copious enemata nocte-manuque; this treatment was followed with the same satisfactory results as before, so far as keeping vomiting and systemic disturbance quiet. Morning and evening copious enemata were given, until the 28th, when he had two encouraging stools; pulse tranquil, and 80; all through it kept steadily 96 to 100. Notwithstanding the continuance of opiates no symptom of narcotism presented. There was a marked difference between this and the second attack, in the remarkable absence of pain and tenderness. He had a sense of oppression from tympanitic distension, which was very great, but nothing more throughout; thirst was often urgent, and tongue brown and parched; lived on fowl-broth all through.

“March 1st.—This morning his bowels acted freely without enemata, and in consequence Dr. O'Connor and I were discharged. The father was physicking him for three days before Dr. O'Connor saw him, so that the obstruction this time continued *nineteen days*—the second attack *fourteen days*.”

“Such attacks as these,” Mr. Sandham remarks, “most practitioners of any standing must have met. The second attack is a remarkable one; and the third is in every particular like it—first, for its obstinacy, never yielding a jot for twelve days; second, for the number of injections administered, in all about thirty—at one time consisting of turpentine, oil, and assafœtida; at another, soap-suds, soap-suds and salts, and even tobacco, cal. and opium pills to ptyalism, croton-oil bolus, croton-oil by itself, senna and salts, salts and infusion of roses, pills of opium and aloes, opium, aloes, and strychnine, castor-oil draughts to the number of twelve, and from one o'clock, A.M., on Friday, 4th, to Sunday, 13th, he took opium every three or four hours in doses of two grains, one grain, or the minimum, half a grain, throughout nine days and nights without one symptom of narcotism being induced. It was remarkable—*once he was put on opium*—how little the constitutional or systemic disturbance. Any medical man looking at him in bed, and examining his pulse, would at once tell the boy to get up for he had no illness. Dr. Watson, in his *Lectures on the Principles and Practice of Medicine*, page 463, says:—‘I know of no cases of disease more painful to witness or to treat than those which result from invincible obstruction of the intestinal tube;’ and, again, page 467—‘It is to these circumstances of irremediable disease that *opiates* are emi-

nently adapted.' Every practitioner knows well how painful it is either to witness or treat obstinate intestinal occlusion. But the history of the preceding incontrovertibly proves that opium is invaluable even in remedial cases—the persevering use of opium Mr. Sandham looks upon as the salvation of his patient.

He is strongly of opinion calomel is entirely contra-indicated once you are satisfied the bowel is constricted or obstructed, no matter from what cause. He thinks calomel does positive mischief, and in this way : you administer a scruple—ten or five grains as a purge at first ; it fails to purge or pass per anum. It is then given every three or four hours, combined with opium. It is accumulating in the system, and what organ does it stimulate or seize on ? The liver. Its secreting powers are increased, or the gall-bladder and its ducts stimulated ; bile is poured out in large quantity ; this bile cannot pass the obstructed bowel, and nature gets rid of it by vomiting ; in fact, violent anti-peristaltic action is induced, and the patient thereby suffers intensely—this being invariably what he has witnessed whenever calomel was administered.

ART. 51.—*On the Disorders caused by Lumbrici.*

By M. BOUCHUT.

(*Gazette des Hôpitaux*, No. 42, 1867.)

M. Bouchut, although not believing that the presence of worms in the human intestines is always the cause of morbid affections, yet asserts that in a certain number of cases these entozoa give rise to general disorders that are sometimes of a serious nature. In order to prove the truth of this statement, he refers to a number of instances reported by Davaine, Esquirol, Frank, Mondière, Gaultier, and others, in which delirium, catalepsy, epilepsy, chorea, mania, and other severe neuroses were produced by lumbrici, and he adds to these the following case which lately came under his own notice in the children's hospital at Paris :—

“ Emilie S., two years of age, was admitted February 25th, 1867. The child had been ill for four days : before that time she had not suffered from any affection except short attacks of mild diarrhœa. On Feb. 21st she was attacked with fever, general debility, loss of appetite, and was also constipated. The prostration was intense, and somewhat resembled coma. The pulse was 120, small, and slightly irregular.

“ The respiratory functions being normal, M. Bouchut was doubtful whether this were a case of typhoid fever or one of meningitis ; but the ophthalmoscope did not reveal any lesion of the retina, and no morbid symptoms were discovered by an examination of the abdomen. Two days afterwards, there was spontaneous diarrhœa, the fever, prostration, and semi-coma still persisting ; and M. Bouchut again thought of typhoid fever, when the child passed two long worms by the mouth without any attack of vomiting.

“ Upon this indication santonine was prescribed and given daily in doses of ten centigrammes : this drug expelled more lumbrici, and all the symptoms then rapidly disappeared. The child became conscious and was

free from torpor, the fever ceased, and the appetite and natural spirits returned, and on the fourth day of the treatment by santonine she was cured."

M. Bouchut states that cases of coma occasioned by the presence of lumbrici in the intestines, are rare; he has seen but one other instance, and that occurred in his own private practice: a young man was affected with extreme somnolency, cephalalgia, epistaxis, loss of appetite, and much fever. The case was thought to be one of typhoid fever, and an emetic was given; this caused vomiting, and the expulsion of several lumbrici; and cure resulted immediately.

The disorders produced by lumbrici may be divided into those that are local or mechanical, and those that are general or sympathetic.

The local phenomena caused by the presence of lumbrici in the intestines are: irritation of the alimentary canal, and enteritis with diarrhoea, more or less severe, glairy and sometimes sanguinolent evacuations, colic, and mechanical obstruction of faecal matter, occasionally leading to the formation of an abscess, or to internal strangulation.

The general or sympathetic phenomena are, loss of appetite, a blanched tongue, acidity of the breath, pallor, chorea, deafness, general or partial convulsions, paralysis and many other neuroses. These symptoms are not so easily accepted by physicians as results of the presence of lumbrici as the local phenomena mentioned above; but so many facts have been reported by M. Bouchut and by other authorities, that there can be no room for doubt concerning their connexion.

Formerly the difficulties in diagnosing the affections caused by worms were insurmountable, and the nature of the case could be cleared up only by the expulsion of an entozoon, but at the present day helminthology has made great progress, and by an intelligent use of the microscope, the diagnosis of these disorders may, in doubtful cases, be made with almost positive certainty.

By the researches of M. Davaine the fact has been established, that the faeces of an individual affected with worms contain an immense number of the ova of that form of entozoon which is present in the intestines. If, on examining faecal matter under the microscope, the physician find either the oval and granulated ova of the lumbricus, or the spherical ova of the trichocephalus, with a small projection at each end, the oval and irregular ova of the thread worm, or the round eggs of the tænia, he can at once declare the variety of the entozoon that is present in the intestinal canal of his patient. This microscopical investigation is not difficult, a lens magnifying 50 diameters should be used at first, and replaced by one of 150 diameters as soon as an ovum is perceived in the faecal matter examined, in this way one may avoid being deceived by mistaking for the egg of a worm some minute particle of mineral or organic matter.

M. Bouchut treats lumbricus with santonine, the alkaloid of worm-seed. To children two years of age he administers it in doses of ten centigrammes, and in patients above this age, the quantity is increased by five centigrammes for every additional year. Lumbrici do not resist this therapeutic agent, which expels them rapidly through the rectum. To guard against other worms being developed from ova remaining in the intestines, it is necessary to give calomel or castor-oil in proper doses, and to continue for some time the use of the santonine. The alkaloid

may be given, either as a powder with some gooseberry-jam or honey, or in lozenges or pills; but the powder is the preferable form. Administered in such quantities as are fitted to the age of the patient, the drug does not seem to produce any special disturbance, or to irritate the digestive organs; the urine of the patient becomes of a deep yellow colour, and stains the linen; sometimes a similar change takes place in the vitreous humour, and all objects appear yellow; but this is a very rare occurrence; M. Bouchut having seen it but once.

If santonine be not used, worm-seed may be administered in doses of from sixty centigrammes to one gramme in honey. These two medicinal agents, santonine and powdered wormseeds, may be given in connexion with, or may be replaced by, calomel, which acts efficiently as a vermicide and purgative.

M. Bouchut states that these therapeutic agents are indispensable in the treatment of lumbrici, and that besides these there are no other remedies of any real utility, and he ascribes no importance to what has been said of camphor, decoctions of garlic and male fern, assafoetida, and the oils of Dippel and Chabert.

ART. 52.—*On a New Method of Expelling Tænia.*

By DR. LORTET.

(*Gazette Médicale de Paris.*)

From the researches of modern helminthologists, it is known that two kinds of tape-worm may be found in the human intestine, the bothriocephalus and the tænia solium. These two worms are frequently confounded by physicians, but the difference may easily be made out, by the fact of the former having the genitals upon its broad flat surface, the latter presenting them on its margins. The bothriocephalus causes but little annoyance, and is easily expelled. The ethereal oil of male fern, or Peschier's pills, followed by a mild oleaginous purgative, will rapidly remove this unpleasant habitant from the intestines. But in certain localities this worm will appear again and again with hopeless obstinacy, being reproduced not from the cephalic extremity left adherent to the mucous membrane, but by the ingestion of fresh cysticerci. In some places upon the banks of Lake Lemán, it affects the inhabitants almost in the manner of an epidemic. The bothriocephalus rarely affects Frenchmen. The tænia solium, on the other hand, is very common, and it is a remarkable fact, that great difficulty is often experienced in driving this worm from certain patients, although they avoid with the greatest care the originating causes of the affection. In order to treat the patient rationally, it must, *à priori*, be established that it is necessary.—1st. To administer some substance which will kill, or at least render inert, the worm, without exciting contraction of the intestines; and 2ndly, to give to the patient afterwards a mild oleaginous purgative, which will remove the worm without breaking it up. Inhalation of ether, or its direct absorption by the intestinal canal, after it

has been administered either in capsules or evaporated with syrup, will produce anæsthesia in the entozoon, which is then carried without violence to the rectum, from which it may be expelled entire and alive by a dose of some mild purgative.

Dr. Lortet has tried this remedy in only a few cases, but it has always succeeded, even in two patients in whom all other remedies had failed. The following is his method :—To give in one dose 20 grammes of ether, which in two hours is followed by 30 grammes of castor-oil. The worm is discharged without causing pain, entire or almost so, and always with the cephalic end intact.

(D) GENITO-URINARY SYSTEM.

ART. 53.—*Diabetes.*

By H. BENCE JONES, A.M., M.D., F.R.S., late Physician to St. George's Hospital.

(*Lectures on Pathology and Therapeutics.*)

Dr. Jones, in speaking of the treatment of diabetes, in his elaborate work on Pathology and Therapeutics, says, that the effect of diet is far beyond that of any known remedy. An anti-farinaceous, or in other words, an anti-saccharine diet, will remove the sugar from the urine, and stop all the symptoms of the complaint in all those cases in which the power of consuming the animal sugar remains unaffected. Even when the consumption of the animal sugar is imperfect or impossible, an anti-saccharine diet will lessen the thirst, the flow of water, the dryness of the mouth, and even the constipation, and check, though it may not stop, the waste. The simplest formula for the diet may be thus stated. All animal produce, including fish, flesh, fowl, game, eggs, cream, and meat-soup should be taken; and all vegetable food that contains starch, dextrin, and sugar should be avoided. The vegetable substances that contain most starch, dextrin, and sugar are rice, maize, arrowroot, sago, potatoes, oatmeal, peas, beans, biscuit, toast, macaroni, vermicelli, and all confectionery. Fruits are even worse than vegetables. Apricots, plums, peaches, cherries, pears, and gooseberries are nearly as bad, and some worse, than rice or maize. Stout, porter, and ale, cider, port, madeira, champagne, and sherry are more or less highly saccharine; cocoa and chocolate contain nearly 20 per cent. of starch and dextrin naturally, and more is often added.

As regards the use of medicines in diabetes, Dr. Jones is of opinion that there are two ends to be gained by their use; the first and most important is to promote the oxidation of the sugar; or, failing this, to compensate the system for the loss of saccharine fuel, and the consequent loss of power and nutrition by promoting the supply and oxidation of the oleaginous fuel. Of all the medicines that can be given for the promotion of the oxidation, whether of sugar or fat in the body, iron and alkalies are the most energetic; and hence, beyond all other remedies, iron or the ammonio-citrate of iron with excess of am-

monia, or with other alkalies, are usually the best medicines for diabetes. The iron may be given in potass or Vichy, or in Fachingen water, and that preparation which confines the bowels least is most to be preferred. Hence, the potassio-tartrate and Griffiths' mixture are often useful. Alkalies without iron promote oxidation. Soda or potass may be given in the caustic state, or as carbonates. Carbonate of ammonia in ten, fifteen, or twenty-grain doses thrice daily in any gaseous mineral water lessens the thirst.

Besides alkalies some animal substances are thought to promote change in the sugar in diabetes. Of these rennet and pepsine may be mentioned; but Dr. Jones is not satisfied that either are very useful.

Vegetable and animal oils and fats constitute important remedies in diabetes. Of all these cod-liver oil and cream are most frequently used. The following case may be taken as an instance of the amount of cod-liver oil that can be given:—

A man, aged twenty-four years, was admitted into St. George's Hospital, having lost two stone in weight during eight months. He passed seven quarts of urine daily. He remained under treatment for a month, during which time he was on animal diet and cod-liver oil. He began with half an ounce daily, and this was gradually increased up to eight ounces. The quantity of urine fell to two pints and a half—specific gravity 1030, and he increased in weight from 8st. 1lb. to 9st. 1lb.

Cream may be given in any quantity until the tongue begins to be coated, then it soon disagrees, and the stomach refuses to take it, or rejects it when taken.

Pure glycerine may be employed as a substitute for sugar in tea, and in other liquids.

To lessen the thirst, and the craving for food, opium is very useful—five or ten grains of Dover's powder, or five or ten drops of laudanum may be given once or twice daily.

The second great object in the treatment of diabetes is to remove the constipation.

Notwithstanding the amount of food eaten, the action of the bowels usually is very difficult. All saline aperients increase the thirst, and pass off by the urine. Magnesia, from the absence of acidity, is usually inactive. Castor-oil is by far the best aperient, when it does not nauseate, then capsules containing castor-oil, with minute quantities of croton-oil, are most efficacious. Compound extract of colocynth with jalapine, scammony, or gamboge, or podophylline, will act when oil cannot be taken. Calomel may be used as an aperient, but it has not any advantage over other chemical or mechanical irritants to the mucous membrane of the bowels.

ART. 54.—*Training, or Forced Exercise in the Treatment of Diabetes*

(*British and Foreign Medico-Chirurgical Review*, Oct. 1866; *Bulletin Général de Thérapeutique*, Dec. 30, 1866.)

Professor Bouchardat, while admitting the efficacy of alimentary treat-

ment in diabetes, considers it only as palliative, and he recommends the adoption of energetic exercise. This idea is not a novelty on his part, as in former writings he recommended, in the case of patients affected with this complaint, the energetic action of their bodies and arms; and then he ascertained that labour in the open air always promotes the utilization of the feculent matters in diabetic patients. It is not sufficient in all cases to cause the disappearance of the sugar, but, all things being equal, in regard to the quantity of feculent matters absorbed and other conditions, a diminution in the proportion of sugar contained in the urine always coincided with exercise in the open air. M. Bouchardat gives an instance of remarkable success in the treatment of diabetes attained by this treatment, the diet being carefully regulated and the urine being examined at intervals. Although the patient may at first be very weak, the adoption of exercise will gradually give him strength. It is of the greatest importance, according to M. Bouchardat, to use the strength in proportion as it returns; and daily exercise of the body, arms, and legs is indispensable. The greatest care must be taken to find some daily exercise which is agreeable to the patient—as, for instance, in the case of men, hunting, rowing, fencing, skating, billiards, cricket, &c.—or any ordinary manual employment, as sawing, cleaving wood, turning, and the active work of gardening; and in women, all the active household employments, especially those which require the action of the legs rather than standing without walking. Riding in a carriage is not to be adopted except when no other exercise is possible; but riding on horseback is a salutary kind of movement, although it cannot be substituted for all the others. Of all the modes of exercise, that which is most convenient must be chosen; and it ought to be energetic, so as to produce a thorough sweating over the whole body; and then all necessary precaution should be taken to prevent the chance of chilling the system. M. Bouchardat relates several cases in which his system was successfully adopted in the treatment of diabetes; he considers the exercise of the gymnasium especially useful when such an establishment is well conducted, and he gives some rules to be followed by the patients. When the exercise has been continued for about an hour, and all the body is bathed in sweat, the flannel should be changed, and the skin washed briskly with cloths soaked in cold water, then strongly rubbed with coarse gloves or towels, or flesh-brushes. Then the body is to be struck and kneaded, so as to produce a complete reaction, which is sustained by a walk of a quarter of an hour at least, the body being protected by good woollen clothes. The skin should not be neglected while these exercises are used, and salt-water baths, either warm, or, what is better, cold, if they can be borne, are, according to M. Bouchardat, of almost invariable utility. During the treatment the diet must be carefully regulated, glycogenic substances being avoided while the urine is diabetic, and resumed only when the sugar has disappeared. The red wines of Bordeaux or Burgundy may be drunk; but sparkling wines, like champagne, should be avoided. Coffee and tea, without sugar, are sometimes suitable, but their employment must be regulated by the condition of the urine after they are taken.

ART. 55.—*Diabetes.*

(Medical Times and Gazette, January 12, 1867.)

The plan Dr. Hare, of University College Hospital, adopts in cases of diabetes, is to allow the patients, when first admitted, the diet of the hospital in as great quantities as they desire. After pursuing this plan for a day or two, he changes to the usual restricted diet for diabetic patients, and can thus ascertain for himself the exact difference so produced. The effect is quite amazing. The quantity of urine is diminished, as is the amount of sugar contained in it, and by persevering in this plan of dieting he is able to reduce the specific gravity of the urine to a very low standard. In one case recently under his care it came down to 1007, yet there was a trace of sugar present. Cases have been recorded where sugar was found in urine having a specific gravity of 1015 or 1016, but we believe that this is one of the, if not the very, lowest densities presented by urine containing sugar. Dr. Hare usually combines his dietetic treatment with the exhibition of the tinct. ferri perchloridi and opiates night and morning.

ART. 56.—*Treatment of Diabetes.*

By ABBOTTS SMITH, M.D., M.R.C.P., &c.

Dr. Smith says, in his instructive little work *On Diabetes*, that the plan of treatment most likely to prove beneficial in this complaint is as follows:—To limit the patient's diet to such articles as do not contain sugar or starch; to attend carefully to the state of the secretions, especially those of the bowels and skin, promoting the action of the former by the administration of podophyllin (so as to act particularly upon the liver), or saline purgatives, and increasing the action of the skin by diaphoretics, the hot-air bath, warm clothing (flannel worn next the skin), and moderate exercise. When the general condition of the patient has in this manner been improved, we must specially direct our attention to the morbid secretion of the urine, and endeavour to check it by suitable medicines. To give any particular remedy, simply because it has been known to be beneficial in diabetes, before the general points referred to have received attention, is as opposed to common sense as it is likely to result in failure. The following general diet may be adopted by patients suffering from diabetes:—

Breakfast.—Bacon, mutton-chop, or eggs; one of the substitutes for ordinary bread; butter; tea, coffee, or cocoa, made with freshly ground nibs, and not with the ground cocoa-powder, as sold in the shops, unsweetened with sugar, and without milk.

Dinner.—Beef-tea, broths, or soups not flavoured with carrots or other vegetables; mutton or beef, poultry or game, and fish; cabbages, greens; occasionally, but sparingly, rice pudding without milk, blanc-mange made with cream, not with milk; cheese, butter, and bran,

gluten, or almond bread. (This meal should not be taken later than three or four P.M.). For dessert, the patient may be allowed a glass or two of sherry or claret, and oily nuts, such as hazel-nuts or filberts, or walnuts. All other kinds of fruit must be interdicted.

Tea.—Similar to breakfast, with the exception of meat, which is not requisite.

Supper (at nine or ten P.M.).—Dietetic bread and butter, with a little meat, or a small basin of rice milk without sugar.

In the medical treatment of diabetes, the remedies which are of most frequent benefit are alteratives and tonics, so as to improve the appetite and general condition of the patient, and thus enable him the better to bear up against the great drain upon the system, caused by the elimination of the morbid saccharine materials. Quinine, gentian, and other bitters are very useful for improving the tone of the stomach; and the state of the patient may be still further amended by the administration of cod-liver oil, and of the preparations of iron. No remedy in the *Materia Medica* is of such value in the treatment of diabetes as cod-liver oil, it has a great tendency to improve the condition of the blood by increasing the proportion of the red corpuscles, which undergo considerable diminution in the blood of diabetic persons.

ART. 57.—*Treatment of Incontinence of Urine.*

By ABBOTTS SMITH, M.D., M.R.C.P., &c.

Dr. Smith states in his interesting brochure *On Diabetes; and on Enuresis arising from Irritability, Weakness, or Inflammation of the Bladder and Urinary Organs*, that it should not be overlooked that a cure of enuresis will be greatly facilitated by certain moral and dietetic measures. For instance, any bad habit of not getting out of bed for the purpose of emptying the bladder at proper intervals should be counteracted. The quantity of fluids taken by the patient should be moderately restricted, particularly in the evening. This constitutes the real secret of the occasional success of the plan of treatment termed "*Dieta Sicca*," resorted to by some practitioners for the purpose of diminishing the excessive secretion. It consists in giving thick soups, bread, roast or baked meat, fish without sauce, and dried fruits; the amount of liquid nourishment is gradually lessened, and the patient's thirst is assuaged, by the use of baths. This plan, however, is useless when enuresis depends on actual disease of the bladder or kidneys. The usual diet should be selected chiefly from articles of food which, although nutritious, are unstimulating to the kidneys or to the bladder, and which are not difficult to digest. Of these, none is so well adapted as milk. Amongst the most objectionable articles of diet may be enumerated all liquids which are taken when hot, especially tea, spices, pastry, salted and preserved meats, and most compound dishes. The general remedial measures of sea-bathing, change of air, and exercise, will prove the most useful in atonic, strumous cases; but the patient should be cautioned with respect to

riding on horseback, which is productive of the disorder in many persons of a delicate organization, and will, when excessively indulged in, frequently render the affection serious, and almost intractable to medical treatment.

ART. 58.—*Sarcinæ in the Urine, associated with Dyspepsia and Neuralgia.*

By F. BATEMAN, M.D., M.R.C.P. Lond.. Physician to the Norfolk and Norwich Hospital.

(*The Lancet*, February 9, 1867.)

Sarcinæ in the urine are of so rare an occurrence, or at all events the published cases are so few in number in which these abnormal productions have been observed, that Dr. Bateman is induced to place on record the following case, as containing several features likely to interest, not only the scientific observer, but the practical physician:—

"During the summer of the year 1865 I was consulted by Mr. D., a gentleman aged fifty-five, who for many years had been subject to rheumatism and neuralgia in various forms, and who was just then suffering from dyspepsia and general neuralgia—that is, pains of a neuralgic character in different parts of the body. He told me he had been in his usual health till a few days previously, when he ate heartily of *mitey cheese*, to the indiscreet use of which he attributed the dyspepsia and neuralgic symptoms which induced him to seek my advice.

"On examining this patient's urine, I found it loaded with sarcinæ, there being, however, no other peculiarity in this secretion beyond the presence of a few crystals of oxalate of lime. Being desirous of ascertaining whether the sarcinæ were present in the other secretions, I examined the fæces, but with a negative result. I also tried to persuade my patient to empty his stomach by an emetic, with the view of ascertaining whether these abnormal bodies were present in this organ; but, although formerly a lover of physiological investigation himself, he declined to assist science by the *experimentum in corpore humano*, as performed on his own person. Without entering into further details, suffice it to say that, under a purely dietetic treatment, in the course of a few days the dyspeptic and neuralgic symptoms subsided, and with them all traces of sarcinæ disappeared.

"A few weeks afterwards the same train of symptoms—viz., dyspepsia, neuralgia, and sarcinæ in the urine—again occurred after the indiscreet use of indigestible food—that is, after a hearty meal of *cucumber, hare, vinegar, and beer!*

"Early in April of last year Mr. — had another attack of indigestion, ascribed by him this time to having eaten very heartily of *potatoes*. On examining the urine passed the next day, it was found to contain sarcinæ, which were present also, but to a less extent, on the third day, but had disappeared altogether from the urine passed on the fourth day from the attack.

"The urine of this gentleman continued free from this curious growth

till the end of August, when it again appeared as an accompaniment of dyspepsia, this time produced by, or at all events occurring after, partaking of *bread and cheese and small beer*, the patient having at the same time indulged in a pipe, although from past experience he knew that smoking invariably disagreed with him. I found the urine acid, of specific gravity 1027, not albuminous, containing, besides sarcinæ, oxalates in abundance and a considerable quantity of pus-cells. I also, on this occasion, made a volumetric analysis of the principal solid ingredients, with the following results:—

| | |
|---|-------------------|
| Chlorides | 13 parts per 1000 |
| Urea | 17 " " |
| Phosphoric acid (in combination). | 2.6 " " |

"There are two other symptoms in the chemical history of this gentleman which seem to me deserving of notice—viz., the existence of a stricture of long standing in the membranous portion of the urethra, and the frequent occurrence of severe prostatic irritation, relieved quite recently by the passage of several small *prostatic calculi*."

On consulting our best authorities, Dr. Bateman finds that the appearance of sarcinæ in the urine is comparatively rare. Bennett has only seen one case; Beale mentions a few instances; Neubauer and Vogel only allude to two cases; and these authors all dismiss the subject without entering upon the pathological deductions to be drawn from the presence of these vegetable organisms.

(E) SKIN DISEASES.

ART. 59.—*Papers on Skin Diseases.*

By TILBURY FOX, M.D., M.R.C.P., Physician to St. John's Hospital for Skin Diseases.

(*The Lancet*, March 2 and 9, 1867.)

In these papers Dr. Fox gives a summary view of the diagnostic features of skin diseases. "It is not uncommon," he says, "for the majority of cases to be preceded, or even accompanied, by severe constitutional disturbance; therefore, if there be much fever and malaise, especially where the patient takes to bed from a sheer feeling of illness, whenever rash begins to show we suspect something grave, one of the acute specific diseases probably. However, amongst the occasional exceptions, acute lichen, erythema nodosum, secondary syphilis, acute eczema, pityriasis rubra, acute pemphigus, urticaria, herpes zoster, and erysipelas may be named. Secondary syphilis has been mistaken for the mottling of typhus and measles, acute lichen for measles, and herpes zoster for pleurisy, on account of the pain. It is merely necessary to be aware of these mistakes to avoid them. This test is then important as the rule. When symmetrical, the disease is due, usually, to a blood-poison; when unsymmetrical, to local causes or affections of the nervous trunks probably.

Temperament.—We guess at a glance whether our patient is of full

habit and likely to have a loaded system, especially the case in women; whether there be organic disease, or if there be a dyspeptic habit, or an ill-fed system, that signifies debility. If *lymphatic*, we may expect eczema, impetigo, intertrigo, the pustular aspect of scabies, and ring-worm; if *gouty*, the scaly diseases, chronic eczema, and lichen agrius; if *rheumatic*, erythema nodosum; if *strumous*, eczema, lupus; if *florid*, alphas especially. There is also the *cancerous* aspect, and in *nervous* subjects various hyperæsthesiæ engrafted upon ordinary eruptions, and so on. Red-haired subjects get pityriasis of the scalp.

We ask how long the disease has existed?

Hereditary diseases are—lepra, psoriasis, ichthyosis, lichen, eczema, and syphiloderma especially.

Congenital diseases are—syphilodermata, pemphigus, pigmentary, nævoid, and ichthyosis (scales).

Chronicity.—The more chronic a disease is the more does it tend to become a local disease; and this is the case with hereditary affections, hence in these cases *local* treatment is the most important.

Has the patient had the disease before?

Recurrence.—Lepra is essentially the disease which recurs, but syphilitic diseases also return.

Occupation.—Cooks get eczema, and erythema, and lichen agrius about the backs of the hands, with bakers, grocers, and bricklayers; chimney-sweepers are liable to epithelioma of the scrotum; cotton-workers to urticaria; butchers and graziers to whitlow, boils and malignant pustule; dragoons and shoemakers to an inveterate form of eczema in the fork of the thighs; young women who come from the country and have the full diet fare of the London servants, get an overloaded system that shows itself as erythema papulatum, erythema nodosum, or impetigo.

When did the disease first appear?

Age is very important. During the first six weeks of life congenital syphilis develops itself; intertrigo, eczema of the scalp, and seborrhœa capillitii; the congenital diseases of course show also. Syphilitic pemphigus occurs, it is said, before the child is six months old, not afterwards; during the first few months and up to and through the period of dentition, strophulus and eczema. One need only mention important facts. Cancer (epithelioma) is a disease of late life—not before thirty, about sixty; and rodent ulcer about the age of sixty and beyond. Lupus is a disease which commences in early and young life, and the same may be said of syphilis. The parasitic diseases occur in the young, rarely after twenty-one years of age. Herpes circinatus (or, as I call it, tinea circinata) is the form seen in middle life. In old people, prurigo, ecthyma cachecticum, pemphigus, and pruritus occur, with cancer and rodent ulcer.

Where did the disease first appear?

Seat.—On the *scalp* we have parasitic diseases, keelion, eczema, porrigo at the back of the head, sebaceous cysts, alopecia, and lepra; *ears*, eczema; *forehead*, lepra and herpes zoster; *near the eye*, chromidrosis, rodent ulcer, xanthelasma or vitiligoidea, molluscum; *face generally*, acne, impetigo contagiosa, erysipelas, lichen, syphilitic eruptions, erythema; *nose*, lupus, hypertrophy, acne rosacea; *cheeks*, lupus, ma-

lignant pustule, acne rosacea; *upper lip*, impetigo sycosiforme, herpes labialis; *lower lip*, epithelioma; *chin*, syphilis; *whiskers*, acne sycosiforme; *angle of mouth*, congenital syphilis; *chest*, chloasma and keloid; *under clavicle*, sudamina; *about the nipples in women*, scabies; *in the side*, shingles; *outer and posterior aspects of trunk*, prurigo and lichen, as distinguished from eczema on the *inner and front* aspects; *elbows and knees*, lepra, psoriasis; *interdigits and about wrists*, scabies; *back of hands*, lichen and grocers' and bakers' itch: *palm of hands* alone, syphilitic lepra and erythema; *buttocks and feet of children*, scabies; *upper line of penis*, scabies; *scrotum*, eczema, psoriasis, and epithelioma in chimney-sweepers; *front of leg*, erythema nodosum, and in old people, eczema rubrum; *about the anus in children*, congenital syphilis; *generally over the body*, pemphigus foliaceus and pityriasis rubra; *in the bend of joints and armpits*, eczema rubrum; and limited to the *hair follicles*, lichen and pityriasis pilaris; and to these and the *sebaceous glands*, lichen scrofulosis and lichen rubra.

Our next query ascertains whether the eruption be *persistent* or *cranescent* (urticaria), developed pretty much at once (acute specific diseases, herpes zoster, herpes), or *consecutive*, as in most cases, *uniform* or *multiform*: the latter being the character of scabies and syphilodermata especially, and also seen in the complication of scabies by impetigo contagiosa; urticaria, and scabies, or purpura; scabies and prurigo, eczema and scabies, eczema and lichen (eczema lichenodes), eczema and psoriasis, seen oftentimes in the fork of the thighs and about the bend and front of the elbow. This fact of the intermingling of diseases is one of the most important to remember; to forget it is to lay oneself open to one of the commonest sources of error.

To scrutinize closely the character of the eruption to ascertain the *primitive elementary lesion*, is our next duty. In acute cases we have no difficulty; but in chronic instances it is frequently difficult, because the disease is often modified by *secondary changes*—brought about by (1) abortive development; (2) by treatment; (3) by the intercurrency and intermingling with other diseases, as before mentioned. Most skin diseases employ the agency of inflammation in their operation; and this consists of redness (congestive), papulation (depositive), vesiculation (effusive), pustulation, &c. Now some diseases only need the aid of the minor, others of the greater, of these; hence by abortive development a vesicular disease (eczema) may only reach the erythematous or the papular stage. And we must remember that our guides to the correct interpretation must be the concomitants in each case. The intermingling of two or more diseases requires to be kept in mind; and the effect of treatment is oftentimes to check secretion, and to produce an unnatural scaliness and dryness, so that a chronic eczema looks like psoriasis (lepra). The history, however, shows it to have "run" or discharged in its early days. *Scratching*, too, always induces additional inflammation, and flannel very much so. In chronic cases, we necessarily go to the newly-developed part of the eruption to ascertain the nature of the elementary lesion—that is to say, to newly-affected parts where the eruption is scattered and discrete, and to the edge of patches. In many cases congestion is augmented by deficiency of elimination, especially in regard to the kidneys. I believe our omission to attend to

this is greatly to be reprehended, and in elderly people the effect of gravitation and retarded circulation is most potent. Many a case of eczema rubrum is exaggerated by, if its visible presence be not dependent upon, a deficient kidney action."

Dr. Fox next summarizes the features of the various eruptions:—

"*Eruptions, and their characters.*—Maculæ: (1) *pigmentary*—freckles, moles, the melasma about the nipples in pregnancy, vitiligoidea (sebaceous?); (2) *parasitic*—chloasma, often confounded, when the microscope is not used, with (3) *syphilitic* stains; (4) *hæmorrhagic*—persistent, and irremovable by pressure. Erythema: There is no need to particularize that of the acute specific diseases. Mistakes generally occur with roseola, which is confounded with erythema papulatum and rubeola; but it is never accompanied by distinct catarrh; is rose-coloured at first, gradually getting duller; non-crescentic, occurring in circular patches from half an inch to an inch in diameter; not on the face; whilst it is often partial. In acute diseases erythema oftentimes occurs about the arms and limbs, as in cholera or rheumatism. Ordinary erythema is of a darker hue than roseola; it has a bluish tinge at its edge, and is not so well defined—*i.e.*, is more diffuse. Erythema may also arise from friction; from tension, as in œdema; from medicinal substances, as henbane, arsenic, belladonna, copaiba; and after operations, when it is often pyæmic. The erythema of erysipelas is accompanied by tension, shining, smarting, and swelling. E. scarlatiniforme presents all the characters, as regards the rash, of scarlatina, but without its general or throat symptoms or the peculiar appearance of the tongue. The rash is seen about the neck, the flexures of the joints, and the trunk; it lasts five or six days, and is often evanescent for a time. The rosalia of authors—rubeola notha, or rubella—holds the same relation to rubeola that E. scarlatiniforme does to scarlet fever—that is to say, there is an absence of the general symptoms, whilst the eruption is similar. In all these cases of acute febrile erythemata desquamation is observed. In every instance the redness disappears or is removable by pressure, unlike that of purpura or pellagra. In lupus erythematodes an erythema like chilblains is common; it occurs in summer as well as in winter, and is connected with loss of hair, &c. The erythema of urticaria is very easily diagnosed: a slight scratching with the nail will produce a wheal. *Papules*, pale and firm, on the inner aspect of the limbs, with a thickened dull state of skin, constitute lichen; with dark apices (coagulated blood), if in a slight degree and on the arms and anterior aspect of the trunk, as a complication of scabies and of strophulus (pruriginosus) in children; to a marked extent seen in prurigo, accompanied mostly by an inelastic state of skin and the "broad" papules formed by an exaggeration of the little areas enclosed by the natural furrows of the skin: intermingled with vesicles and pustules in scabies; soft and red, and in children with erythema strophulus; flat and reddish, collected together in little parcels, though discrete, lichen ruber; aggregated and confluent, lichen circumscriptus; formed about the hair-follicles, lichen pilaris, pityriasis pilaris, lichen scrofulosus, and the lichen of phthisis. The most common mistake, that of confounding lichen and scabies, is at once avoided by observing the multiform aspect of the latter and the uniform character of the former.

"Those eruptions in which vesicles and pustules occur are distinguished eminently by the occurrence of secretion; and this at once divides diseases into two great classes: in the one class, where secretion or discharge occurs, *crusts* form; in the other, crusts are entirely absent. Ulcerative diseases are easily recognised. *The character of the secretion* affords most reliable information. If there be serosity, with crusts, it is intertrigo; if thin, few, flimsy, light-coloured crusts form, and the discharge stiffen linen, it is *cezema*; if the crusts be a little thicker and in little circular patches, herpes or vesicular scabies. *Sero-purulent*, with slight yellow crusts, *cezema impetiginodes*; or if stuck on and flattened, *impetigo contagiosa*; *purulent*, forming thick crusts of a yellow colour, becoming more or less dark, *ecthyma*, *furunculus*, *purulent scabies*, *impetigo sycosiforme*, *impetigo scabida*, *sycosis*; and if cockle-shaped, *rupia* of course. *Sanious*, *rupia* and *ecthyma cachecticum*. *Fatty*, *acne sebacea*, *seborrhœa capillitii*, *seborrhœa*, *sebaceous ichthyosis* (legs). *Hæmorrhagic*, *hæmidrosis*, &c.

"We distinguish scales from crusts: scales are altered epithelial cells. Redness with scales, lasting on to chronicity, we see in *tinea circinata*, *erythema circinatum*, and *herpes iris*. Scales, as a primary formation, if partial, in *lepra*; if general, *ichthyosis*. *Tubercula* are (1) homologous, as in *keloid* and *elephantiasis*. *Keloid* never ulcerates, and occurs about cicatrices and the chest; it is white and hard, with a few vessels coursing over it, with claw-like processes produced by contraction of the hypertrophous growth. Other forms of disease need not be mentioned, save *molluscum*, which consists either of an increase of the fibro-cellular tissue of the derma, including the pilous follicles, or of enlarged and recognisably distended sebaceous sacs. (2) Heterologous, followed by ulceration; and of these there are four diseases somewhat alike, some characters of which have already been given:—

"*Cancer (epithelioma)*.—Solitary, flat, *hard*, and tender. Scabs slight. When ulceration sets in the glands enlarge. There is much infiltration of tissues around the ulcer, which is papillated, dirty-greyish, ichorous or semi-scabbed, with hard, everted, and undermined edges. Epithelial elements may be seen by the microscope.

"*Rodent ulcer* begins as a small, pale, pretty soft tubercle, of very slow growth, almost painless, giving rise to an ulcer, without glandular enlargement, presenting a clear surface, not papillary, without ichor, but with *hard*, sinuous, non-everted, and non-undermined edges.

"*Lupus* has at its base an erythema that looks like searing; then upon this arise dullish-red, softish, round, gelatinous-looking tubercles, forming patches of various extent. Thin adherent crusts form. There is no pain. The course is indolent. The edges of the patches are inflammatory, rounded, and raised, but not everted. There is always a tendency to repair, and cicatrices form, accompanied by distinct loss of substance.

"*Syphilis*.—Tubercles commence as papules; they become hard, large, and flattish, but not so flat as those of *lupus*; they are dull-red at first, then coppery, and disposed in circles, or serpiginous, covered by thick dark scales. There is an ulcerating and a non-ulcerating form, the ulceration being often serpiginous and misnamed '*lupus*.' Syphilitic tubercles often occur about the face. The ulceration is dirty, ashy grey,

sloughy, and ichorous, the edges sharply cut and everted, surrounded by tubercles of a copper tint.

"With regard to parasitic diseases, no difficulty ought to arise now that the microscope is at hand. Nevertheless, favus and impetigo are confounded with lepra, eczema, and tinea tonsurans, notwithstanding the cupped-crust favi of the former and the dry nibbled patches of the latter, in which the epithelial cells and hairs are literally eaten away by the fungus, when this is in abundance. Chloasma, with its itching and desquamation, is very frequently indeed mistaken for syphilitic maculæ. Sycosis is often non-parasitic; in this case, the damaged split-up hairs will be absent, whilst the disease travels up into the whiskers."

ART. 60.—*Notes on Skin Disease.*

(*Medical Times and Gazette*, January 12, 1867.)

The following are notes from Dr. Hillier's practice at University College :—

The treatment adopted by Dr. Hillier is simple. He combines local and general measures in most diseases, but in some cases trusts almost exclusively to local applications—as, for instance, in scabies, in prurigo of old people dependent on pediculi, and in the impetigo of the occiput, which is commonly due to pediculi. In the two latter diseases, tonics are also given internally. Many very obstinate cases of prurigo of months' duration have been cured in a week by the use of an ointment consisting of half an ounce of olive oil, half an ounce of lard, and two drachms of the powder of stavesacre; at the same time more frequent change of linen, and care in the washing of it in boiling water, are enjoined. Four-fifths of the cases of prurigo senilis are found to depend on the pediculus corporis, and should be called phthiriasis. It nearly always attacks the shoulders and neck first, and subsequently spreads to the trunk and lower extremities. It is not exclusively confined to old people. Mr. Balmauno Squire has recently insisted on the fact that prurigo is commonly due to the pediculus corporis. It will be found that the older writers were familiar with the fact. Rayer figures the pediculus by the side of his plate of prurigo. It is a great gain to know that so distressing a malady has a local cause, as this knowledge saves the patient from drugs and leads to a more speedy cure. Scabies is believed to be due solely and exclusively to the presence of the acarus scabiei, one or more of which in nine cases of scabies out of ten which have not been submitted to treatment can be discovered at the end of the cuniculus. It is easily extracted on the end of a bent pin. The treatment is directed to the destruction of this parasite. Nothing is found so effectual as macerating the skin with soap and water, and the subsequent free inunction of simple sulphur ointment. If the cuticle is very thick and hard, a little carbonate of potash, one part in twelve of the ointment, is added with advantage. Other means of treating scabies have been tried, such as the solution of sulphuret of calcium used in Belgium; Hebra's ointment of sulphur, soft soap, huile de cade, chalk, and lard; benzole; solution of sulphate of zinc; solution of iodide of

potassium, and sulphur baths. None of these remedies are equal, Dr. Hillier believes, to the old-fashioned sulphur ointment.

For the treatment of ringworm (*tinea tonsurans*), a preparation, composed of two drachms of iodine dissolved in an ounce of colourless oil of tar, is used with great success. It was first introduced by Dr. Coster, of Hanwell Central London Schools. This preparation is painted on the affected parts with a firm brush. It forms a cake, which separates at the end of a week or fortnight. It may require to be repeated once or twice, but not often more frequently. It causes little or no pain; is not liable to cause abscesses or destruction of the hair-follicles, such as often result from deep blistering. The oil of tar is obtained by distillation from the common tar, and has a specific gravity of $\cdot 853$. Good diet and tonics or cod-liver oil promote the cure, but they are not essential.

For the cure of favus, epilation is assiduously resorted to, with the use of sulphurous-acid lotion, or an ointment containing sulphur and white precipitate.

For the cure of alopecia areata (*tinea decalvans*), local stimulation with tincture of cantharides or tincture of iodine is mainly used, whilst arsenic is often given internally. This drug is also used in the treatment of psoriasis, chronic eczema, and pemphigus, and less frequently in lichen and lupus. In acute eczema and psoriasis, antimony is given in doses proportioned to the strength of the patient and the amount of local inflammation, as a preparation for an arsenical course. In chronic eczema, with much thickening of the cutis, strong solutions of potassa fusa are painted on the affected parts. When there is not much thickening and not much crusting, tar is applied locally, either undiluted or with equal parts of glycerine, as recommended by Hebra.

Some dermatologists forbid the use of soap almost entirely in skin diseases. Dr. Hillier rather encourages its use, except in acute eczema, pityriasis, and herpes.

He does not consider that the same diet is adapted for every case of skin disease. This requires to be regulated according to the constitution of the patient. He does not think that all cases of eczema in children are benefited by an extra quantity of meat in their diet, or that nearly all skin diseases are traceable to debility.

One of the most important things in treating a skin disease is to ascertain whether there is any syphilitic character in it. In this case, small doses of the bichloride of mercury are given with or without an excess of iodide of potassium. In tertiary syphilis, the iodide of potassium is given alone. If the patient is very cachectic, it may be preceded by the iodide of iron. For congenital syphilis, grey powder is usually preferred.

ART. 61.—*Eczema, and its Treatment.*

By DR. W. FRAZER, M.R.I.A. ; Hon. Member Med. Chir. Society, Montreal ; late Examiner to the Queen's University, Ireland.

(*Journal of Cutaneous Medicine and Diseases of the Skin.*)

In this paper, which contains some remarks of a practical nature upon

the important subject of eczema, with special reference to its treatment, Dr. Frazer observes :—

1. Eczema is a disease always curable within a reasonable time, and often most amenable to treatment.

2. The hair should never be removed, unless under exceptional circumstances.

3. Sulphur is useless in this disease, sulphur-baths not required, or injurious.

4. Moist applications, lotions, and frequent bathing, are all injudicious.

5. Expatriation to distant watering-places quite uncalled for.

6. Constitutional treatment of primary importance; tonics are indicated; and alterative doses of oxymuriate of mercury are of decided service.

7. In certain cases chalybeates are required, and, when gout is present, colchicum.

8. When excessive hyperæsthesia exists, strychnia, given in small repeated quantities, is beneficial.

9. The digestive functions require attention, acidity and imperfect digestion being often complained of.

10. For local treatment, a dilute glycerate of nitrate of mercury is recommended. Formula: \mathcal{R} Unguent. hydrarg. nitratis, olei olivæ vel unguent. cetacæ, ana $\mathfrak{z}\text{ij}$; tere et adde glycerinæ $\mathfrak{z}\text{iss}$, olei amygdal. essent. gtt.vj. Fiat unguentum.

11. When there are fissures in the hands and fingers, strong nitric acid is useful; it requires to be applied with a light hand, and restricted to the fissured parts.

12. Ointment of red iodide of mercury to excite local action in those cases for which potash solutions are advised by Hebra.

ART. 62.—*Psoriasis*.

By T. W. BELCHER, M.A., M.D. Dub.

(*Medical Press and Circular*, February 6, 1867.)

The following case is recorded by Dr. Belcher :—

“C. K., aged thirty, and married, by trade a house-painter, was admitted to the Dispensary for Diseases of the Skin on the 28th December, 1865, with a few patches of psoriasis in the vicinities of the joints, particularly of the elbow-joint. He had this affection for some time, and had been treated for it, but had not persevered in the treatment advised by his medical attendant. He had no syphilitic taint, so far as I could ascertain. The form of the disease under which he laboured was that described in my edition of *Neligan* (p. 251) as *psoriasis aggregata*, the *psoriasis diffusa* of Willan, the *psoriasis confluens* of Rayer, and the *psoriasis vulgaris* of other dermatologists. The patient had no constitutional disturbance or local irritation; no itching or inconvenience of any kind, except the fact of the eruption. In this case I gave an arsenical mixture, containing three minims of Fowler’s solution in each

half ounce; and I directed him to take one dose thrice daily, immediately after meals, intermitting for a day or two in case arsenical symptoms supervened, and taking two teaspoonfuls of Epsom salts once a week. For a considerable time after he began to take this medicine there were not any apparent signs of amendment, but neither were there any signs of aggravation of the disease, such as most practitioners see in cutaneous cases, when first 'put on arsenic,' as the phrase is. There were not any signs of arsenical saturation, and therefore I conclude that the action of the medicine was tonic and alterative. The doses were neither increased nor decreased, and there was not any local treatment adopted. On the 23rd of February, 1866, he was nearly well, and on the 2nd of March there was scarcely any trace of the eruption to be seen. I have not seen the patient since, so I conclude he was troubled no further with his old enemy; but if so, it was more by good fortune than because of anything else, for he dropped off attending, as so many do, when he thought himself well, and did not persevere in the use of the arsenical solution, as he ought to have done, for at least two or three months after all traces of the disease had disappeared.

"This is but one instance of several others which I have treated on the same plan, and though there is nothing novel or original in treating this disease by Fowler's solution; yet I think the case in point illustrates the specific action of a single remedy, and shows that many cases of psoriasis may be cured without the adoption of any local treatment whatever, without giving gradually increasing doses as advised by many good authorities, and without evidence of arsenical saturation, which, according to others, is necessary in cases of this kind. Moreover, it shows that such large doses as fifteen minims, as advised by some—and those no mean authorities—are not at all necessary for ordinary purposes."

Dr. Becheher makes the following observations on this disease:—

PSORIASIS, the *lepra* of the Greeks, the *vilitigo* of Celsus, *lepre* of the French, *der aussatz* of the Germans; *sahafati* of the Arabian medical writers; and *sappachath* of the Levitical law (Lev. xiii. 2), may be taken as the representative of the squamous class. Dr. Neligan divided it into psoriasis guttata, psoriasis aggregata, and psoriasis lepræ formis. The first two of these varieties may be said to be stages one of the other, although in all cases this is not found to be so, while the third is the *lepra* of some writers, and may be looked on as the typical and fully-developed psoriasis with silvery scales arranged in an ovoid or circular form, and unaccompanied by any constitutional, and, for the most part, by any local irritation.

Dr. McCall Anderson, in his monograph on psoriasis, describes a variety which he calls psoriasis *rupioides*, because of the disease assuming the shape of large conical crusts, marked by concentric rings. There is also the variety called syphilitic psoriasis, which properly should be classed among the "syphilides," and is therefore outside the range of this paper.

Causes.—It is undoubtedly hereditary, but of course not necessarily so, and in short it may be best described as essentially a blood-disease. Mr. Erasmus Wilson believes it to be caused by a syphilitic poison, but many other writers are not of this opinion. So far as my experience goes, it occurs chiefly in those whose health is below par, and is more frequent among what we call the better classes, than among our poorer brethren.

At least, taking patients number for number, I see more cases of it in private than in dispensary practice.

Diagnosis.—Many practitioners confound chronic eczema with psoriasis. This I have repeatedly seen to occur; and it is the more remarkable, because while there are several points of non-resemblance between the two affections, there are two which may be readily perceived in almost every case. One is the fact, that in psoriasis the scales are of a bright silvery colour, while the scales or quasi-scales in chronic eczema are not silvery. The other is, that itching is a very marked symptom in chronic eczema, while, so far as I have seen, it is almost entirely absent in psoriasis. Dr. McCall Anderson remarks thus on this point, in his monograph already quoted (p. 6): "There is, curiously enough, a difference of opinion amongst authors as to whether psoriasis is accompanied or not by irritation of the skin—a difference of opinion which is all the less excusable, seeing that we have not here to do with a question of theory, but of fact. Thus, Hardy states that itching is always present, while Devergie informs us that in uncomplicated cases there is never any itching at all. Hebra, on the other hand, states that the itching is only present when the disease is commencing, or when new points of eruption are making their appearance, and that it never continues uninterruptedly during the whole course of the disease. There can be no doubt that the statement of the last-named observer is substantially correct." The diagnosis of syphilitic from non-syphilitic psoriasis is not so easy a matter as that just now mentioned. The points of resemblance and difference are not few; but perhaps the principal are, that in syphilitic psoriasis, there is the coppery tint of the patches of diseased skin common to all the syphilides, as opposed to the dusky red patches of the non-syphilitic; that the extent of the syphilitic eruption is not commonly as great as that of the non-syphilitic; that the patches in the syphilitic disease are usually small and circular, while in the typical disease they are often large and irregular; and that the syphilitic scales are often grey, as contrasted with the bright silvery colour of those in the non-syphilitic affection. Psoriasis has also been confounded with herpes circinatus and pityriasis rubra.

Prognosis.—Mostly favourable, although the disease is essentially chronic, and is very much affected by mental anxiety, particularly among the mercantile classes.

Pathology.—According to some, strumous, according to others, syphilitic; while most French writers consider it to depend on what they call the "Dartrous Diathesis," of which they deem this affection an exemplary illustration.

Treatment.—In non-syphilitic cases, arsenic is the best remedy; and in cases in which there is suspicion of a syphilitic taint I always now use Neligan's ioduretted solution of the iodide of potassium and arsenic, prescribed thus:—

℞ Liquoris arsenicalis, minima octoginta.
Iodidi potassii, grana sexdecim.
Iodi puri, grana quatuor.
Syrupi florum aurantii, uncias duas. Solve.

This solution will be found fully described in Professor Macnamara's

(sixth) edition of Neligan's Medicines, &c., p. 598; and contains in each fluid drachm five minims of Fowler's solution of iodide of potassium, and a fourth of a grain of iodine.

I prescribe forty minims of it for an adult thrice daily after meals. Sometimes it may be given in water; while at other times it may be advantageously taken in infusion of gentian or dulcamara; and it will frequently serve the patient to change the vehicle of its administration from time to time. The effect of this on mind and body is much greater than we should have any reason to expect.

In some cases arsenic must be given to produce the symptoms of arsenical saturation, so well known as being described by Mr. Hunt; and by Dr. Begbie, in his paper, "On the Use of Arsenic," published in the *Edinburgh Medical Journal* in 1858; but I do not at all think this necessary in ordinary cases.

I may be perhaps excused for quoting from p. 270 of my edition of Neligan on the Skin what I consider an aphorism in the treatment of these cases:—"It generally occurs *that in the treatment of scaly diseases by arsenic or by iodine, the eruption at first presents an aggravated appearance, the affected parts exhibiting an irritated aspect, and the scaly desquamation being much augmented; but these symptoms soon pass away, and signs of amendment begin to show themselves.*" I do not think local applications of much use in psoriasis. The fact that so many are recommended is sufficient on this point, even if one had no personal experience; and when to this we add the consideration of the constitutional nature of the disease, it will appear reasonable that local treatment can at best be but palliative. Nevertheless, it is much used in Germany, and by some good physicians at home.

ART. 63.—*Chronic Eczema.*

(*Medical Times and Gazette*, March 30, 1867.)

What will cure chronic eczema? is a question, we fear, more easily put than answered. No one who has had any experience in the treatment of skin diseases will dispute the extreme difficulty of getting rid of any one of them when it has once fairly fixed itself in the system. And it is needless to say that the remedy which succeeds in one case will not in all, as two cases under the charge of Dr. H. Jones well show. The one patient was a boy who had not long been ill. Arsenic effected a speedy cure. The other was an old woman, who had been ill for years. Arsenic was given for weeks, during which she grew no better, but rather got worse. This drug was after a time discontinued, and simple effervescing salines given, under which the patient rapidly improved, but we fear signs of relapse are already showing themselves.

ART. 64.—*Tinea Decalvans* (a Case of Complete Baldness, with Remarks).

Under the care of Dr. DRYSDALE.

(*Medical Press and Circular*, April 10, 1867.)

Mary P., aged fifteen, was brought to see Dr. Drysdale at the Metropolitan Free Hospital by Mr. Sterling, house-surgeon to the hospital, February 15th, 1867. This patient was almost entirely without hair on the scalp; with the exception of about a dozen hairs on the frontal region, and one or two on other parts of the scalp, there was nothing to be seen but a downy cotton-like growth, most visible on the occipital and the parietal regions. The patient was well nourished, and though not fat, was by no means thin. Her health was good, with the exception of occasional headaches—menstruation had occurred once or twice. There were some hairs, but not many, in the regions of the eyebrows.

History.—She is one of a family of four children; none of her brothers or sisters have suffered from this complaint. The baldness first commenced at the age of four years in circular patches, which enlarged and at length became, after partial reappearances, as at present, total. Dr. Drysdale observed that much of the hair was irrevocably lost; but that, if the downy hairs were carefully extracted, and a parasiticide composed of hydrargyri bichloridi gr. j, ad aq. ʒj, were used for some months, it was possible that some of the hairs might grow again.

Willan described, under the name of *porrigo decalvans*, a species of tinea, which M. Cazenave afterwards described as vitiligo, in which the latter observer confounded it with another disease, where the hairs became blanched, but do not fall. Gruby, Audouin, and others have met in this affection a vegetable parasite *microsporon*, and the illustrious observer, M. Bazin, has confirmed the existence of this parasite. We may then define tinea decalvans as a parasitic disease, which affects every part of the hairy system and causes a fall of the hair, and the presence of a cotton-like down upon the part affected, caused by the presence of a fungus called *microsporon Audouini*. At first, in this disease the hairs become dull, dry, and less glistening, and easily pulled out, whilst the skin becomes pale beneath. After the fall of the hairs, a cotton-like down is observed on the surface of the scalp, upon which down a white dust is to be observed, consisting of the parasitic growth. In a later stage of the disease, we no longer find any down, and there is atrophy of the scalp and irremediable baldness.

The disease ordinarily appears in the form of rounded patches, surrounded by healthy hair, which patches continually tend to become larger from the extension of the parasitic growth. This may go on until every hair in the body is destroyed. The cure of this disease sometimes come on spontaneously, as in the case above cited, for a time; in certain cases it does not go further than the downy period.

This result is much favoured by pulling out the hairs and using a

parasiticide, such as gr. j of hydrarg. bichlor. to aquæ ʒj, with q.s. of alcohol. This application must be made for a long time to the parts affected. The appearance of the cryptogams under the microscope is similar to that in other parasitic diseases, except that the mycelium is in greater quantity, and the spores are said to be rather smaller.

The *diagnosis* of tinea decalvans is rather easy. There are two pathognomonic symptoms—(1) the fall of the hair, (2) the existence of down. It need rarely be confounded with favus or tinea tonsurans, since in favus there are crusts and cups, and the hairs do not all come out; again, in tinea tonsurans the hairs are broken, and the skin is coloured brown and covered with scales. The *prognosis* is generally grave as far as baldness is concerned, unless vigorous means are made use of. The disease is very contagious, and Dr. Drysdale has seen three cases of it in the same family at one time. It is, perhaps, more common in children than in adults. The treatment must consist of epilation of a large space of the hair in the vicinity of the patch, and the long application, by means of a sponge, of the parasiticide lotion above referred to. In some cases it is extremely difficult to extract the hairs, which break easily. When the disease has come to the last stage, all treatment is useless. Mr. Erasmus Wilson and other observers in this country seem to err in believing that cases like those cited above may be caused by nervous weakness. The baldness caused by wasting diseases, such as phthisis, syphilis, fevers, and senile baldness, &c., are easily diagnosed from that which is gradually caused by well-defined patches progressing, as in this patient, because unchecked by treatment, towards total baldness.

ART. 65.—*Case of Prurigo alternating with Melancholia.*

By C. HANDFIELD JONES, M.B., F.R.S., Physician to St. Mary's Hospital.

(*British Medical Journal*, March 9, 1867.)

Dr. Jones states that he is indebted for the following case to Dr. Palmer:—

“A clergyman, aged sixty-four, had an attack of melancholia about 1850, which lasted two years, leaving him quite well. When seen in October, 1859, he stated that he had had varicose veins in the left leg for a long time, which on one occasion gave rise to troublesome rash and itching. The use of a bandage and aperients had kept him from suffering any annoyance from them for some years. At this date there was a threatening of a renewal of pain and itching near the left ankle; the veins were enlarged. His health was good. After a few weeks, one or two small ulcers formed; from these a blush of erythema radiated, accompanied by much itching. In spite of the best devised management, the itching, clearly of a pruriginous character, increased in extent and severity. About the end of the year, his condition was really

distressing. The itching he described as intolerable, precluding sleep, or rest of mind or body. The surface of the whole leg was bright red, and covered with a very thin cuticle, through which innumerable papulæ could be seen; but there was no raw discharging part, save two little ulcers. The only relief obtained was from keeping the leg enveloped in lint soaked in strong infusion of tobacco, with the addition sometimes of powdered opium, sometimes of a large proportion of hydrocyanic acid. Latterly, faintness after eating came on. The mind all the time was perfectly sound. One morning early in February, a hasty message was brought, that Mr. — had gone out of his senses. When Dr. Palmer visited him, he found him wildly excited, and irrational in his talk; but the prurigo was gone. The previous evening, he had been itching as usual; this morning the skin was only a little red, and he said it was quite well. He gradually became melancholic, and has so remained to the present day (November, 1865). The prurigo has never returned." Believing, as Romberg does, that prurigo is essentially an hyperæsthesia of cutaneous nerves, Dr. Jones regards its alternation with melancholia as an occurrence of the same kind as the shifting of a neuralgia from one part to another; the only difference being, that a nervous centre is substituted for a nerve-tract. In Dr. Jones's work on *Functional Nerve-Disorders*, he has recorded an instance in which severe facial neuralgia, as it gave way to quinine, was replaced by periodical attacks of hysteria, lasting about two hours. Whether, in the above instance, any *materies morbi*, such as the gouty, existed, and underwent metastasis from the peripheral parts to the central, he has no evidence to show. Dr. Jones does not think that in either lichen or prurigo we have much ground for believing that the malady is dependent on any blood-poison. It seems to be of importance to have a clear conception of the possibility of nervous centres suffering in a quite analogous way to nerves, as the mind is thereby taken off from perpetually recurring, in all cases of cerebral disorder, to the notions of congestion and effusion, as it is so prone to do.

ART. 66.—*Treatment of Itch by Balsam of Pern.*

(*Schmidt's Jahrbücher*, and *New York Medical Journal*, February, 1867.)

In the Berlin Charité, Peru balsam has been used against itch with great success. Dr. Burchardt's plan is to wash the patient thoroughly, morning and evening, and then rub in the balsam. By this means he has been successful in making a cure in several days. Under the microscope the itch-insect in the balsam is seen to die in half an hour, and he thinks that the balsam, by penetrating the channels which the insect burrows in the skin, comes in contact with the germs, and prevents their development.

SECT. III.—FORENSIC MEDICINE.

ART. 67.—*Four Cases of Entry of Air into the Circulation.*

By N. HECKFORD, Medical Registrar to the London Hospital.

(Medical Times and Gazette, February 9, 1867.)

The entry of air into the circulation is generally supposed to be an event of rare occurrence. The fact, however, of four cases having come under Mr. Heckford's notice within a period of thirty months, leads him to think that it is by no means an infrequent cause of death. In cases of fracture of the ribs, with wound of lung especially, he sees no reason why air should not occasionally be forced into the lacerated vessels as well as into the general areolar tissue.

In one of his cases death was instantaneous. In two others, although the exact period of the entry could not be determined, it is probable that death did not take place until some time after. In the fourth case the patient lived four hours. In this instance, judging from the comparatively small quantity of air that must have entered, and also from an absence of any symptom denoting distress, Mr. Heckford is led to believe that the fatal result was due to another cause.

The following cases are recorded:—

CASE 1.—In January, 1865, I was requested by Mr. Loane, Surgeon, of Dock-street, to assist him in making a post-mortem examination of the body of a woman who had died suddenly during childbirth. She was forty-three years of age, and this was her eighteenth confinement. She enjoyed good health, and up to the time of death nothing unusual was noticed. Labour commenced at four P.M. At three o'clock on the following morning a midwife was sent for, but did not attend in time, and thus no reliable history of the symptoms could be obtained. A female friend, who was the only person present, stated that after a few strong pains, a living child was expelled, and immediately after its birth the mother expired. According to her statement, death was instantaneous, and without the least struggling. "She turned on her back and was dead." There had not been any hæmorrhage, and the placenta was not interfered with.

Post-mortem Appearances.—The lungs were found to be somewhat emphysematous at the apices, and congested at the bases, but the latter condition was, no doubt, the result of post mortem gravitation of blood. The bronchial mucous membrane also was congested and thickened (from old bronchitis). The heart appeared quite healthy, its substance was not fatty, and the valves were perfect. There was no atheroma of the aorta or the coronary arteries. Both ventricles contained blood, with which (from its frothy appearance) a considerable quantity of air was mixed. On making sections of the different viscera, air bubbled forth freely from the divided bloodvessels, and in the arteries of the brain its presence was unmistakable, as it could be seen intervening between columns of blood in numerous places. The various organs were otherwise in a normal condition, and the presence of air was, apparently, the only possible cause of death. This examination was made fifty-four hours after death, and the objection might be raised that the so-called air was nothing more than gas produced by decomposition. To this I would answer that the body was in a state of perfect preservation. It must be recollected that it was winter. The greater

part of the placenta was still united to the uterine walls, but at one spot it had become detached. If, then, my supposition as to the cause of death be correct, air must have entered by the uterine sinuses corresponding to the detached portion of the placenta.

CASE 2.—In July, 1864, a man was admitted into the hospital with fracture of several ribs on the left side. The corresponding lung was wounded, and there was extensive emphysema of the cellular tissue. He died at the end of twenty-four hours. Urgent dyspnoea existed from the first, and this of course masked any unusual circumstance which may have occurred at the moment of death. At any rate, death was not peculiarly sudden. In this case also both sides of the heart contained frothy blood, and air was found permeating the tissues generally. This body was examined within twenty-four hours after death, and here the air must have entered by the wounded pulmonary vessels.

CASE 3.—The particulars of this case were given me by Mr. Llewellyn, House-surgeon. A middle-aged man in robust health was admitted for a compound fracture of the femur. The wound was comparatively slight, and there was no hæmorrhage of importance. The patient was evidently in great distress, his restlessness and anxiety being so marked as to elicit from the nurse a remark to the effect that she had "never seen a man die so hard." Death occurred an hour and a quarter after the receipt of the injury. It was thought to be due to shock, although at the time it was considered strange that the vital powers of so muscular a man should have been so easily overpowered.

The post-mortem examination was made forty-two hours after death. No internal injuries were found. Air was present in the veins. The record does not state that it was also noticed in the heart, but that the organ was empty. Mr. Llewellyn, however, acknowledges that it may have escaped observation, especially as so unusual a circumstance was not suspected. The air in the veins was seen towards the end of the examination, and after the heart had been removed. This case, therefore, is not quite conclusive.

CASE 4.—About the middle of last October, while acting as Resident Medical Officer, I admitted a severe case of cholera. The patient was a woman far advanced in pregnancy. She was pulseless, blue, and cold, and her breathing was shallow and rapid. The prognosis was of course most unfavourable. Saline injection into the veins was the plan of treatment adopted. The median cephalic was the vessel opened. After the introduction of about fifty ounces of the fluid some obstruction to its flow occurred. To overcome this, the injection-tube was withdrawn a little way, when suddenly a peculiar gurgling, hissing sound proclaimed the entry of air. I suppose traction on the vessel was caused by the partial withdrawal of the tube, thus inducing the condition called "canalization." I may also mention that I distinctly felt the thrill of the air rushing up the vein. The apparatus was immediately removed and a compress and bandage applied. No appreciable aggravation of the patient's previous dyspnoea was noticed after the accident, neither was there any struggling nor additional complaint of any sort. The woman died in about four hours' time; the mode of death, however, was gradual, and did not in any way differ from that usual in cholera collapse. At the moment of death the operation of Cæsarian section was performed, but the fœtus extracted had evidently been dead some time.

At the post-mortem examination air was found in both ventricles, and also in all the vessels. As a proof of the impossibility of this being due to decomposition, it is as well to state that no such condition existed in the fœtus.

ART. 68.—*A Case of Resuscitation after Two Hours' Apparent Death by Drowning, occurring in the late Catastrophe at Regent's Park.*

By JOHN DENNAN.

(*Medical Press and Circular*, January 30, 1867.)

On the afternoon of Tuesday, the 15th January, Mr. Dennon received, in the absence of Mr. Oubr , a summons to view a dead body just withdrawn from the ornamental waters in Regent's-park.

The man was apparently *quite dead*, and was intensely cold, from having been immersed some minutes, and having struggled in the water for more than half an hour. There was neither breathing nor heart's action, the pupils dilated, the jaws clenched, and the limbs contracted, so much so that the clothes had to be cut off before anything could be done to the patient.

A frothy mucus covered the mouth and nostrils; the body was much swollen; Mr. Dennon had it placed on an incline at an angle of about 35 ; as the body was so very cold, he commenced, with the assistance of the two men who brought him home, to try to restore warmth by degrees, rubbing the chest and limbs thoroughly and swiftly with ice and snow, cleansing the mouth and nostrils from time to time, and adopting Silvester's method of artificial respiration for more than two hours. After a quantity of frothy mucus was discharged slight signs of animation were perceptible, though faint.

Mr. Dennon then had him well wrapped in blankets, placing large tins of hot water at the feet, and mustard poultices on the chest, while the body was well rubbed with warm flannel under the blankets. This treatment was continued for three-quarters of an hour, at the same time continuing to imitate the movements of breathing. A decided improvement then took place. The patient's jaws relaxed, and he appeared to breathe more freely. Two teaspoonfuls of warm water were then administered, which caused him to vomit slightly. As soon as he commenced breathing freely he was able to take a little warm tea, which he apparently relished.

The patient was now placed in a warm bed prepared for him, soothed to sleep, and all undue excitement prevented.

The patient was feverish for one or two days, but on the following Friday Mr. Dennon had the pleasure of receiving a visit from him.

ART. 69.—*Amblyopia produced by Tobacco-Smoking.*

(*The Lancet*, March 16, 1867.)

M. Viardin has reported three cases of amblyopia caused by smoking. In the treatment of these cases the quantity of tobacco smoked was reduced under the direction of M. Viardin, and the sight was restored in the course of a few weeks.

ART. 70.—*Poisoning by Fleming's Tincture of Aconite ;
Recovery.*

Under the care of Dr. JOHNSON.

(*The Lancet*, February 23, 1867.)

The symptoms peculiar to poisoning by aconite were well marked in the following case, for the interesting particulars of which we are indebted to Dr. Fenn, house-physician:—

George W., aged sixty-one, a porter at the office of a Parcels Delivery Company, was admitted under the following circumstances, on the evening of the 7th of December, 1866. It appears that he was in his usual state of good health on the morning of that day, when, about half-past twelve P.M., a box coming down the "slide" at the bottom of which he was standing, received such a jar that one of the bottles in it was broken, and some of the fluid ran through the box on to the counter. It had, he stated, something of the appearance and smell of brandy, so that he was induced to drink a tablespoonful or more (?). Immediately on swallowing it he felt a burning sensation in his mouth and throat, and shortly afterwards in his stomach, which was soon accompanied by a numbness and tingling of the lips and tongue. Half an hour after taking the fluid he vomited freely, and half an hour later began to complain of numbness and sense of weight in his extremities, which became very cold, and he was unable to raise them from the ground. His breathing shortly became hurried and laboured; he retained his consciousness, though his son said he occasionally seemed to ramble; he complained also of pains running from his head through all his limbs. At four P.M. he was purged, and at six P.M. he was brought to the hospital.

When seen by the house-physician, he was lying on a table in the waiting-room; his face was flushed, and his conjunctivæ were injected; his hands and feet were cold and clammy; respiration laboured, 36; pulse small and soft, 80; heart-sounds feeble; the mouth and beard were wet and frothy with saliva; pupils dilated; he complained of a burning sensation in his mouth and pain in the epigastrium; was very restless, frequently "drumming" the table with his feet, saying they felt like two heavy weights attached to his body. He was at once removed to bed, hot bottles being applied to the extremities, and hot brandy-and-water and coffee administered; he, however, vomited everything that he swallowed.—Nine P.M.: Lies in a sleepy condition, but can be easily roused, pulse 92, stronger; respiration easier, 32, complains of pain in his stomach, but there is no marked tenderness; numbness and sense of weight in the extremities less troublesome; pupils natural.

Dec. 8th.—No vomiting since ten P.M. last night. He complains of headache and numbness, with cramps in his legs and arms; slept fairly. From this time he rapidly recovered: the headache and pain in his stomach, and a slight stiffness, with cramps in the calves of his legs, of which he complained for a few days, gradually disappeared, and he was discharged well on the 15th of December.

As regards the poison swallowed by this man, it appeared on subsequent investigation that the box from which the fluid escaped contained four bottles, unlabelled; one of them had been broken, from which the fluid drunk had escaped, about four ounces of which left in the bottle was afterwards brought to the hospital, and it was at once recognised to be tincture of aconite. It produced numbness and tingling of the lips when rubbed on them. In reply to a letter sent to the medical practitioner to whom the box was directed, and who is said to be a homœopath, information was received that the broken bottle contained Fleming's tincture of aconite. As regards the exact quantity swallowed, the only guide is the man's own statement, to the effect that he put his mouth down to the counter and "supped up a tablespoonful or more."

ART. 71.—*Case of Lead-Poisoning.*

Under the care of Dr. WILKS.

(*Medical Times and Gazette*, February 9, 1867.)

The following case of lead-poisoning in a tailor, from biting his tape-measure, is of interest, because opinions differed as to the nature of the paralysis, and because the way in which the lead was introduced into the body is one which, so far as we know, has not been previously described:—

James P., aged thirty-three, came amongst Dr. Wilks's out-patients suffering from drop-wrist, general tremor, and other nervous symptoms. He was a tailor, in the cutting-out department, and was constantly using a heavy pair of shears. A medical opinion had already been given that the weakness of the arms was due to the use of this instrument, and was of the nature of "serivener's palsy." On examining the man's gums, a distinct and well-marked blue line was observed, and he was consequently questioned about the possibility of lead-poisoning. On a thorough cross-examination as to his habits nothing could be elicited, but Dr. Wilks requested him to think over the matter during the ensuing week. At his next visit the mystery was solved. He said that, whilst engaged in his occupation of cutting out, he was in the habit of placing his measuring-tape in his mouth. This was covered as usual with an enamel of white lead. He had also got into the way of biting the tape, so that it soon became worn out, and he was obliged to have a new one every week or two. In fact, he used up several a year. He was ordered to be galvanized, and to take iodide of potassium. Under this treatment he soon began to improve; in two months' time he was able to resume his employment, and then slowly got well. His symptoms had been coming on for nine months, and for four months he had been quite incapacitated for work.

SECT. IV.—THERAPEUTICS.

ART. 72.—*Disinfectants.*

By E. D. MAPOTHER, M.D., Surgeon to St. Vincent's Hospital,
Dublin, &c.

(*Lectures on Public Health.*)

Dr. Mapother refers, in his valuable and most interesting lectures on public health, delivered at the College of Surgeons, to some of the most reliable chemical substances for artificial disinfection of rooms and spaces where the seeds of disease may be supposed to linger. The doctor says, finely-powdered charcoal, obtained from animal substances, peat, or wood, has great disinfecting influence upon organic effluvia, and it should be hung in bags through the place which it is desirable to purify. It acts by the oxygen it condenses on its surface, which is so extensive that a cubic inch of charcoal is said to equal, in superficial extent, 100 square feet. Dried earth is said to have similar but much more feeble powers. Lime is useful in removing carbonic acid, and the watery vapour which contains the organic matter. White-washing is so desirable in point of cleanliness and cheerfulness, that Dr. Mapother is sorry to have a word to say in disparagement of it; but as many sanitary amateurs place their whole faith upon it, he impresses upon the profession that its sole action is to absorb carbonic acid, which, however, is not so pressingly necessary, as it so readily diffuses, and in small proportion is not very hurtful. He thinks a little chloride of lime might be added to the lime with advantage.

Dr. Mapother next alludes to Condry's fluid—a solution of permanganate of potash—which rapidly oxidizes organic matter: exposed in saucers, or thrown through the air as by a jet, it would very effectually purify the atmosphere, and if sprinkled upon the floor, might act in the same way. Sir William Burnett's solution of chloride of zinc is very active for a short time, but it loses its power of absorbing sulphuretted hydrogen when it becomes acid in reaction. Chlorine gas is the most effectual destroyer of sulphuretted hydrogen, as it rapidly unites with the hydrogen, precipitating the sulphur in fine powder, and of organic matter, which it bleaches, deodorizes, and probably decomposes by abstraction of hydrogen. The easiest way to evolve it is to mix two tablespoonfuls of common salt, two teaspoonfuls of red-lead, and half a wineglassful of strong oil of vitriol in a quart of water. The bottle must be kept cool, tightly stoppered, and in a dark place. A little of this fluid exposed in a saucer, sprinkled on the floor, or soaked in sheets of old linen, and hung about the room, rapidly deodorizes and destroys effluvia. For disinfecting solids iodine has been much made use of latterly: with methylated spirit, its tincture can be prepared for about six or seven shillings a gallon. Bromine has been also recommended. Nitrous acid gas has a powerful oxidizing action on organic matter, and on sulphuretted hydrogen, but is objectionable on account of its own fumes, which often excite coughing. It is disengaged by heating

nitric acid, to which a few copper slips are added, in a retort. In typhus and cholera, for the purpose of destroying, in rooms or on clothes, the animal emanations which constitute the poison of those diseases, no agent is more reliable. Either this gas or chlorine should be plentifully evolved in foul privies, especially during warm weather, and when dysentery or diarrhoea is prevailing. Sulphurous acid, made by throwing sulphur in a brazier of burning coals, has been used since the days of Homer for the purpose of disinfection, and it acts by preventing the growth of the lower forms of life. It is a most powerful destroyer of fetid gases, but it has the disadvantage of bleaching and rotting clothing. To purify water, boiling is the surest and simplest remedy: charcoal or magnetic oxide of iron is the best filtering medium. Condry's fluid may be safely added to drinking water, in the proportion of about a teaspoonful to a gallon, as an excellent way to remove organic matter. For cleansing cisterns, mechanical means—such as scraping if they be cement or stone, or charring with lighted shavings of wood—may be also used.

Carbolic acid, Dr. Mapother says, does not act by retarding oxidation, as Mr. Crookes has conclusively proved, but with regard to the fermentative process, "it not only arrests it instantly when in progress, but it prevents the development of future fermentation." While it does not interfere with purely chemical ferments, as diastase, it checks those which depend on, or at least are accompanied by, the production of minute plants or animals. For the deodorization and disinfection of sewage and other manures, carbolic acid is most valuable, for while it checks the fermentation which wastes these valuable products, it causes the retention of the nitrogenous matters. The neutral metallic salts, chloride and sulphate of zinc, and sulphate of iron, are powerful in checking putrefaction, as was first proved by Falcony, who mixed the first with sawdust round dead bodies, and thus preserved them for months.

In speaking of the disinfection of clothes, Dr. Mapother says it was the late Dr. Henry of Manchester who, being called on to apply some method of disinfection to cotton supposed to be infected with the plague, suggested the use of heat, as that disease disappears when the temperature rises. He himself wore clothes from typhus and scarlatina patients after they had been exposed to a heat of 200°, and did not contract either disease, and vaccine lymph was rendered useless in the same way. Dry heat is superior to that of boiling water, as infected clothes are said to have communicated fever after they were immersed in that fluid.

Infection of Cabs.—Dr. Mapother has no doubt that small-pox and scarlatina are frequently contracted in cabs. A well-known London physician employed a cabman to take him to a patient's house. As he was alighting the driver said, "I think it's small-pox that ails the lady, for last week I brought her here just after I had left a case at the Small-pox Hospital." And such was her disease, and so contracted.

Advice in Cholera Time.—Dr. Mapother quotes some of the directions which were most extensively issued on the outbreak of cholera last year. After some information with regard to dispensary and hospital relief and treatment meanwhile, it was advised:—

"4. Keep the windows open, or partially so, not only in sick rooms, but in all rooms, even at night; sprinkle the floor with chloride of lime mixed with water; soak all clothes which may have been about the patient in the same mixture, and place some of the chloride of lime in any vessel which is to be used to receive the discharges from the patient, which should be then placed in the privy. Landlords of tenement houses should keep a supply of chloride of lime in the basement story and yard.

"5. While there is danger from cholera, every one's diet should be moderate—fruit, fish, or other foods not perfectly fresh, should be avoided. Great temperance should be observed, and the water used for drink should be previously boiled, and when cold tossed between vessels to restore its taste. Food should not be taken in the sick room, nor until the hands of those who have tended the sick have been washed with chloride of lime and water.

"6. All rooms and yards should be whitewashed, privies and ashpits cleansed, collections of filth or stagnant water removed, and the openings of sewers trapped with water valves."

ART. 73.—*Nature of Disinfectants.*

(*The Lancet*, February 16, 1867.)

At a recent meeting of the French academy. M. Chevreul made some very interesting remarks on the subject of disinfectants. The French chemist thinks some of our more common disinfectants of very little value. He tabulates his conclusions as follows:—1. Two volumes of sulphuretted hydrogen and one volume of sulphurous acid with vapour give rise to water and sulphur; in other words, two odorous and deleterious substances became converted into two inodorous and harmless ones. 2. Equal volumes of hydrochloric-acid gas and ammonia form a compound which is neutral as to acidity or alkalinity, although the gases remain unaltered. 3. In the reaction of three volumes of chlorine on eight volumes of ammonia, two volumes of the latter are destroyed, and six are simply neutralized. There are some substances which *seem* to neutralize the disagreeable smells of organic matter, and which really act in quite a different manner. Phenic acid, according to M. Chevreul's inquiries, when placed in contact with organic matter giving off offensive odours, neither destroys them nor neutralizes them, but, by combining with them and forming a compound incapable of giving off offensive emanations, arrests *putrefaction*.

ART. 74.—*Eating too Little.*

By THOS. KING CHAMBERS, MD.

(*The Indigestions or Diseases of the Digestive Organs Functionally Treated.*)

Too little to eat is a cause of dyspepsia familiar to medical men who have practised among the lower classes. Eating too little, Dr. Chambers

says, is not exactly a synonym, for it is found, and by no means rarely, among those with whom it is not involuntary. The following case is given in illustration:—The Rev. J. S., aged forty-eight, told Dr. Chambers that when reading hard for his degree at the University he first became sensible of pain after eating. His theory was that he ought to eat less; and so he did, less and less; and, with the hope of working a cure all at once, actually lived a whole year on bread and water only. In consequence he was troubled with flatulence, debility, and frequent attacks of palpitation of the heart. The pulse was uneven, and occasionally intermittent. A generous animalised diet, taken frequently, with wine, quinine, and strychnine, while at the same time the oversensitive nerves were deadened by opium and hydrocyanic acid, enabled Dr. Chambers to allow him to return home in ten days.

ART. 75.—*Tight-Lacing.*

By THOMAS KING CHAMBERS, M.D.

(*The Indigestions or Diseases of the Digestive Organs Functionally Treated.*)

The organ which suffers most from this baneful habit is said by Dr. Chambers to be the unresisting stomach, which is dragged and pushed out of all form during the continuance of this packing process. The longer the continuance the more it suffers. If it is constant we get cases like the following:—“Emily K., aged sixteen, was a full-grown woman in form, and had been catamenial for three years; but when admitted to St. Mary’s in March, 1864, she was still wearing an old tough black pair of stays made for her when a child. The consequence was that she had never been thoroughly well all that time. The catamenia occurred every three weeks, and, for a girl of her age, were at first profuse, lasting six days; but latterly they had lasted only three days. She had constant pain after eating, frequent vomiting, and frequent rising of food in the throat, on which latter occasions it was sometimes tinged with blood, especially at the menstrual periods. This constant ill-health had made her thin and hysterical, but her lungs, heart, and indeed all the solid organs, seemed perfectly normal. When admitted she was vomiting all her meals. At first she had hydrocyanic acid, but was no better in any respect for it; but on the 6th of April she was put upon a course of cold shower-baths every morning, with valerian three times a day. This, with the removal of the obnoxious stays, seems to have been immediately effectual, for on the 12th it is reported she had not vomited for two days, and on the 18th she was discharged ‘cured.’”

Dr. Chambers remarks, “‘Cured’—of her stays. Easy task in such a case as the above, but presenting insuperable difficulties much more often. Women have a very strong wont.”

ART. 76.—*Respiratory Therapeutics ; or, the Bronchial Passages compared with the Gastric Passages for the better administration of Medicinal Agents.*

M. BÉCLARD and Dr. SALES-GIRONS.

(*Gazette Hebdomadaire*, No. 10, 1867.)

M. Béclard, in a report to the Académie de Médecine, stated that the method of treatment of Dr. Sales-Girons consists in the applying to the mucous membrane of the bronchi, not gases and vapours, but solutions charged with the active principles of the medicinal remedy, and suspended in the inspired air by means of *pulverization*.

The important question is, whether the pulverized liquid does really pass through the bronchi as far as their ultimate divisions. From the remarkable report of M. Poggiale, and from the experiments of M. Démarquay, there does not remain the least doubt concerning the extent of penetration; it has for some time been demonstrated as a fact; and the improved pulverizing apparatus of Dr. Sales-Girons facilitates and is likely to establish this method of introducing powdered liquids.

The bronchial tubes, although they are angular and diminish in their calibre, will certainly receive along the whole of their extent the powder when reduced to the state of mist and vapour. There are superabundant proofs of the assertion that this pulverization extends to the very ends of the bronchial ramification.

It is an indisputable fact, also, that there are few surfaces more endowed with the power of absorption than the pulmonary mucous membrane. Between the substance that is to be absorbed and the circulating blood there is no intermediate tissue to speak of; so that liquids, when introduced into the lungs, disappear there with amazing rapidity. More than twenty-five pints of water can be injected into the bronchi of a horse in six hours, and absorbed without perceptible injury to the animal. It is known to all physiologists that in introducing a liquid solution into the body, there is no method so sure and prompt as that of applying it to the bronchial passages.

After these facts gained from experience, physiologists may agree with Dr. Sales-Girons in the proposition that the respiratory mucous membrane is really superior to every other mucous membrane in its capability of absorbing medicinal agents. In less than half a minute the whole mass of the blood passes globule after globule through it, so that the absorbed remedy may be in contact with all the elements of the blood in that short space of time.

It follows from these facts, that in comparison with the digestive passages, the bronchial passages are in all respects indicated for the absorption of medicinal remedies. The stomach of a horse may contain, after the pyloric end has been tied, a solution of strychnine for twenty-four hours without there being any symptoms of poisoning (Bouley). Absorption is active in the small intestine, but less so than in the bronchi.

Dr. Sales-Girons uses only active agents in this method of medication, such as the alkaloids, and particularly sulphate of quinine, in cases of intermittent fever, the successful use of which he relates in a case of remarkable cure. So long as physiology has testified in favour of the idea, therapeutics will not fail to produce from it favourable results.

Dr. Sales-Girons states that he administers a drop of the solution in each voluntary inspiration, and in the course of five minutes a sufficient dose can be given; this sitting, may be repeated, if necessary, two or three times in the twenty-four hours.

To what forms of disease is this application suitable? Is it in those which enter into the organism by the pulmonary passages, according to the principle established by Dr. Sales-Girons in these words: "*Quantum valeat organum ad absorptionem morbis tantum valeat ad absorptionem remedii?*" M. Bécларd thinks that it would be unwise to reply to this question before clinical experience has given its verdict.

ART. 77.—*Physiological Properties and Therapeutic Action of Veratrum Viride.*

(*New York Medical Record*; and *British Medical Journal*, Jan. 26, 1867.)

Dr. L. C. Butler, in a paper read before the Vermont Medical Society, at the last annual meeting, thus sums up the knowledge gained concerning *veratrum viride*:—1. The tincture made by macerating eight ounces of the fresh-dried root in one pint of alcohol for a week, and Thayer's fluid extract, are the most reliable and preferable preparations for its administration. 2. The dose of the tincture is five to ten drops, of the extract two to four drops, varied according to the urgency of the symptoms, the age and strength of the patient, and repeated at intervals of one to four hours. 3. It is not necessary to push the remedy so far as to produce emesis or catharsis. Its full effects are usually reached without either of these results. 4. *Veratrum* is essentially an arterial and nervous sedative, whether employed by itself or in combination with other agents. 5. It is as safe a remedy as any we possess, only requiring the ordinary degree of caution in its employment, and, like the majority of our remedial agents, liable to fail in special cases of peculiar idiosyncrasy or of wrong diagnosis. 6. It is equally applicable in the treatment of low forms of fever, and those of an inflammatory type; in the former it is to be preferred to the lancet, and relieves without depriving the patient of any portion of the vital fluid, while in the latter, the better its remedial properties are understood, the less frequently will the lancet be employed.

ART. 78.—*Iodide of Potassium as a Remedy in Erysipelas.*

(*Chicago Med. Journal*; and *Brit. Med. Journal*, February 2, 1867.)

Dr. H. B. Withers, of Rantoul, Illinois, states that he has used iodide of potassium in about thirty cases of erysipelas with perfect suc-

cess. It arrested the disease in from twelve to thirty-six hours. He gives usually ten grains every two hours, observing closely the effect. As soon as the disease begins to subside, the medicine is discontinued. No external application is used, but the parts are simply kept covered and moist. Dr. Withers does not recommend it as a specific, but considers it a very valuable remedy in the disease.

ART. 79.—*Bromide of Potassium in Epileptiform Seizures.*

(*Medical Times and Gazette*, January 12, 1867.)

The following curious case, but of a kind not uncommonly noticed, was lately under Dr. Reynolds's care. The patient, a young woman, had for some years been troubled with epileptiform seizures when she applied for relief. Under treatment by bromide of potassium she rapidly improved; but as the original disease disappeared, an acneiform affection of the skin showed itself. The bromide was discontinued, and Fowler's solution of arsenic was given in the usual doses; but as the skin disease passed away, attacks similar to those she had previously suffered from again came on, and this sort of ringing the changes has been in progress for some time. The girl is a worker in gold lace, and the disease may have some reference to her occupation. What relation there may be, however, cannot clearly be made out. *Apropos* of the bromide in epileptiform seizures, we may add that Dr. Reynolds and his colleagues at the Hospital for Epilepsy and Paralysis prescribe this medicine largely. From what we have ourselves seen, it seems to be most useful in keeping away the fits, but they frequently return when the drug is given up. It is important to give it in large doses, ten to thirty grains.

ART. 80.—*Bromide of Potassium in Epilepsy.*

(*British Medical Journal*, March 23, 1867.)

The bromide of potassium, says M. Voisin, in the *Bulletin de Thérapeutique*, is hyposthenic, calming, hypnotic, and slightly alterative: it is of real utility in epilepsy. It does not usually cure absolutely; but it diminishes the disorder in a marked degree; it lessens and even suppresses the nervous erethism of epileptics—the shocks and convulsions which they so frequently endure.

ART. 81.—*The Therapeutic Value of Subnitrate of Bismuth.*

(*Bulletin de Thérapeutique*, vol. lxxvii. ; and *British Medical Journal*, March 23, 1867.)

M. Monneret has devoted great attention to the medicinal uses of bismuth, of which he has had very great experience. He insists on the

absolute necessity of great doses in order to obtain from this salt of bismuth its true value in therapeutics; and affirms, as the result of his experience, that several morbid conditions external to the digestive tube—of the skin, for example, the genito-urinary organs of both sexes, ozæna, &c.—are favourably influenced by bismuth in powder. Such is the confidence of the learned professor in this powder, that he would have the practitioner keep it constantly at hand, to respond at all times to the indications which call for it.

ART. 82.—*Digitalis in Typhoid Fever.*

(*Répertoire de Pharmacie*, Février, 1867; and *British Medical Journal*, March 23, 1867.)

M. Liederich has taken for his text the words of Professor Hirtz:—"Digitalis is up to a certain point a specific for symptomatic fever, in the same way as sulphate of quinine is for intermittent fever." In order to prove this proposition, he has studied the action of medicines upon the different organs whose functions are disturbed by the fever. The temperature is first influenced; it undergoes two lowerings; the one preparatory, the other principal. In a short time the pulse falls to the normal number of pulsations, and even below. The amount of digitalis to be employed is lessened as the illness proceeds. M. Liederich descants on the treatment to be employed for the accidents caused by the use of digitalis—the vomitings and the digitalic collapse which sometimes occur, without the possibility of prevention. He by no means advocates the use of digitalis in all cases of symptomatic fever, and indicates those in which the antipyretic method might prove injurious. The ataxic form seems to be the one in which the use of this medicine is most distinctly called for. Some of M. Hirtz's observations are shown in the form of tables, given on the different days of the attack, the modifications of the pulse, and the temperature during remissions and exacerbations, whilst under the influence of the digitalis. As the fever abates so do its concomitant nervous phenomena, cephalalgia and delirium.

ART. 83.—*On the Examination of Diabetic Urine: New Reagent for Glucose.*

(*Gazette Médicale*; and *Chemical News*.)

After noticing the several reagents used, and pointing out their special inconveniences, MM. Francqui and Van de Vyvere propose a solution containing oxide of bismuth. The following process cannot, they say, give rise to any fallacy. Prepare the reagent by precipitating a solution of acid nitrate of bismuth by a great excess of caustic potash; and pour a solution, drop by drop, into the moderately-heated solution until the precipitated hydrate of bismuth is completely redissolved. To recognise a diabetic urine, heat a portion with the above solution.

After a few minutes' ebullition, the urine becomes brown, and metallic bismuth is then precipitated in the form of a black powder of crystalline appearance, adherent to the glass if glucose be present. They have satisfied themselves that the principles contained in normal urine, such as urea and uric acid, do not precipitate the above reagent. Albumen only causes a brown colour and a slight turbidity, which they consider to be due to the formation of sulphide of bismuth. Sulphuretted urines also give a black precipitate in a solution of oxide of bismuth in potash and tartaric acid; but this reaction cannot be confounded with that caused by glucose. It is, besides, easy to recognise and (if desired) to separate the albumen. Thus, on bringing to ebullition the urine of a person suffering from Bright's disease, the liquid becomes turbid, opalescent, and deposits coagulated albumen. Sulphides and sulphuretted hydrogen are easily recognised by means of hydrate of lead, which these compounds darken.

ART. 84.—*Pruritus Pudendi successfully treated by Sulphite of Soda.*

By SAMUEL B. FRIZELL, M.D.

(*American Journal of Medical Sciences*, January, 1867.)

In September, 1866, Dr. Frizell was consulted by a lady suffering from pruritus pudendi following menstruation, accompanied with great irritation and much pain. Having read of the influence of sulphite of soda on sycoosis menti, the idea suggested itself to him of trying the same in this case. He accordingly prescribed for her the following local application: Sodæ sulphis. ζj , aquæ ζiij , glycerinæ ζj , misci, which was to be used very often. In three days no trace of the disease was apparent.

ART. 85.—*Tænia Solium successfully treated by Turpentine.*

By CHARLES C. SHOYER, M.D.

(*American Journal of Medical Sciences*, January, 1867.)

A clergyman who had been troubled with tænia for four and a half years, and had been subjected to various remedies, applied to Dr. Shoyer. He ordered half an ounce of ol. terebinthinæ to be taken at ten A.M., fasting, and a half-ounce at one P.M., an interval of three hours; directing half an ounce of ol. ricini at half-past one o'clock; this last was superfluous, for in ten minutes after taking the second dose of turpentine the worm was expelled entire in a mass, and proved to be fifteen feet long. The remedy caused slight intoxication and strangury, which speedily passed off.

ART. 86.—*Sulphite of Soda in Small-Pox.**(American Journal of Medical Sciences, January, 1867.)*

Dr. W. L. Nichol states that he has employed the sulphite of soda in small-pox with advantage. He gave it in solution, in proportion of one drachm of the salt to six ounces of water. A tablespoonful of this was given every three hours.

ART. 87.—*Croup treated by Sulphur.**(Gaz. Méd. de Paris; Journ. de Méd. de Bruxelles, Nov. 1866; and British Medical Journal, January 19, 1867.)*

M. Lagauterie, from observing the effect of sulphur on the oïdium of vines, has been led to administer it in several cases of croup. He mixes a teaspoonful in a glass of water, and gives the mixture in teaspoonful doses every hour; the effect he describes as wonderful. The disease is, in effect, cured in two days; the only symptom remaining being a cough arising from the presence of loose pieces of false membrane in the trachea. M. Lagauterie says that he has followed this plan in seven cases; all being severe, especially the last, in which the child was cyanotic, with protruded rolling eyes, and noisy respiration.

ART. 88.—*Koorchee for Acute Dysentery.**(Indian Medical Gazette; and British Medical Journal, January 19, 1867.)*

A. C. Kastogree, sub-assistant-surgeon, Burrisaul, describes an acute case of dysentery in a child fifteen months old, in which ipecacuanha failed. He endeavoured to get a drug which, without irritating the stomach, would specifically act on the diseased intestine, and fortunately he pitched upon koorchee. This is the bark of the *Wrightia antidysenterica*, growing in jungles as large trees, indigenous in most parts of Bengal. Its seed is the famous *indro-job*, used as a vermifuge by the natives, and in the last cattle-plague of Backergunge extensively used as possessing certain specific virtues. A fresh decoction of the bark of this plant, in the proportion of two ounces of the bark to two pints of water, boiled down to half, was given to the child in four-drachm doses four times a day, with a drop of laudanum in each dose. The effect of this was plainly marked, after seven or eight doses had been taken; in two days the number and quality of the stools became changed; in place of blood and slime, faecal matter was discharged, and from that time the patient gradually recovered. The child subsequently suffered with bilious diarrhœa, which also defied all astringents, but was finally removed by extract of logwood in four-grain doses, three times a day. In acute dysentery, with great irritability of the stomach, where the use

of ipecacuanha is worse than useless, the native koorchee is its appropriate substitute.

ART. 89.—*On the Use of the Sulphite of Magnesia in the Treatment of Zymotic Diseases.*

By H. R. DE RICCI.

(*Dublin Quarterly Journal of Medical Science*, Nov. 1866; and *Brit. and For. Med.-Chir. Review*, April, 1867.)

M. de Ricci thinks that the want of success which has sometimes been observed in the treatment of zymotic diseases by the alkaline and earthy sulphites is attributable to the fact that these remedies have not been administered early enough. If the treatment is too long delayed, the blood becomes so loaded with poison, and deteriorated in quality, as to be no longer able to perform its normal function, and then the sulphites are of no more service than any other remedies, because they cannot restore to life the dead blood-corpuscles. The sulphites should therefore be administered early, while still a large portion of the blood is in a healthy state, and capable not only of carrying on life, but of throwing off what has been rendered inert by the presence of the sulphurous acid. M. de Ricci attributes another source of failure to the administration of hyposulphite of soda, instead of the sulphites, and especially the sulphite of magnesia. The hyposulphite of soda is less efficacious than the sulphites, because in the former the greater part of the acid becomes oxidized in its passage through the animal economy, and appears in the urine as a sulphate, because, being a salt of hyposulphurous acid, it is a less active anti-zymotic, and because it often causes troublesome diarrhœa, while the sulphites of soda and magnesia never produce such effects. M. de Ricci prefers the magnesium salt for internal administration, as it is less unpalatable, and contains a larger proportional quantity of acid than the soda-salt; but he uses the sulphite of soda for external application, because, from its greater solubility, a stronger lotion may be made with it. The sulphites of potash, lime, and ammonia are also active anti-zymotics; but they are in no way superior to the salts of magnesia and soda, while their very noxious taste renders them objectionable. M. de Ricci relates some cases illustrating the efficacy of the sulphites, and he concludes his paper by predicting that eventually the treatment of zymotic diseases by the administration of the sulphites will be as fully recognised as that of ague by cinchona.

ART. 90.—*The Mode of Action of Digitalis.*

By Dr. LEGROUX.

(*Gazette Hebdomadaire*, No. 11, 1867.)

Dr. Legroux concludes an elaborate essay upon "Digitalis and its Mode of Action," with the following brief recapitulation of the principal facts gleaned in his researches:—

1. Digitalis, the active principle of which is digitaline, when given in any dose, has a special action upon the circulation.

2. Although digitalis may act directly upon the heart when given in poisonous doses, it seems, when given as a therapeutic agent in small quantities, to excite primarily the capillaries; the central organs of circulation being secondarily affected in re-establishing the equilibrium of the circulation.

3. If this theory be accepted, digitalis is a sedative of the circulation in the sense that it calms its disturbed action; but it exerts an exciting and tonic, and not an hyposthenic action, as is generally admitted.

4. The influence of digitalis upon the temperature, the secretions, nutrition, uterine contractions and hæmorrhage, can only be explained by the drug acting as an excitant upon the terminal filaments of the sympathetic.

6. This theory fully accounts for the favourable results obtained by digitalis in fever, cerebral affections, dysmenorrhœa, congestion, anasarca, and the disorders of the circulation due to lesions of the heart.

ART. 91.—*Mudar, a Substitute for Ipecacuanha in the Treatment of Dysentery.*

(*Pharmaceutical Journal*, April; and *Amer. Journ. of Medical Sciences*.)

Mr. J. J. Durant states (*Indian Med. Gazette*), that he has found the powder of the bark of the root of mudar (*Calotropis gigantea*) an excellent substitute for ipecacuanha in the treatment of dysentery amongst the native population. In every acute case in which he prescribed mudar it either effected a complete cure in a few days, or at once changed the character of the disease from bloody and mucous to bilious diarrhœa. He administers it in similar doses to what are usually given of ipecacuanha, never beginning with less than one scruple, and seldom going beyond one drachm. He usually gives it alone, but when a weak stomach is suspected in the patient he combines it with carbonate of soda, creasote, bismuth, prussic acid, &c. Like ipecacuanha, mudar, in large doses, is a reliable cholagogue; it is also a sedative to the muscular fibres of the intestines, particularly of the rectum and colon, rapidly allaying all pain, tenesmus, and irritation, and putting a stop to dysenteric action. Its most marked effect is the production of a copious flow of bile, which follows its use in about twenty-four hours.

ART. 92.—*On the Use of Subnitrate of Bismuth.*

By Dr. BRASSAC.

(*Archives de Médecine Navale*, March, April, May, 1866; and *Gazette Hebdomadaire*, No. 9, 1867.)

This salt is much praised by M. Brassac, who has frequently employed it in warm climates and on board ship in large doses, as recommended

by M. Monnerat. He first insists upon the necessity of purifying this medicine of considerable quantities of arsenic contained in it, which must be done if the medicine be prescribed in large doses; the methods of recognising the presence of arsenic and of removing it are described. This salt dries up the buccal and gastric mucous membrane, diminishes the appetite temporarily, and causes constipation. It has no effect upon the temperature, the pulse, or the secretions. It remains for a short time in the stomach and small intestines of the patient, but stays longer in the large intestines, the mucous membrane of which it stains black; it is retained by ulcerations, which it covers over and defends from the action of irritating fluids, and thus favours cicatrization; by it fecal matter is solidified and disinfected. When the sub-salt is not sulphurous it fails in its therapeutical action. Applied externally, it acts as an absorbent, not as a disinfectant. Its action surpasses that of all other remedies in the epidemic dysentery of warm countries, where it is given in quantities of from 15 to 70 grammes daily. M. Brassac has obtained from its use equally good results in the treatment of acute or chronic, severe or mild dysentery. It acts from the commencement upon the ulcers, and allows a prompt recourse to nourishment, the only means of treating the general malady and the cachectic condition of the patient. The subnitrate of bismuth is also useful in cases of diarrhœa, particularly when it affects infants, when it is quickly cured by doses of from 15 to 20 grammes. It succeeds equally well in regulating the stools in the colliquative and putrid diarrhœas of phthisis or severe fever. In diseases of the stomach (in which it is better to use the arsenicated bismuth), although it may not do so much service, it will yet relieve the disturbed digestion of anæmic patients by modifying the pain; it has also the same effect in nervous sympathetic vomiting. In other diseases mentioned by M. Brassac, the sub-salt does not appear to act so favourably in large doses. He mentions, finally, that it acts surely and safely in cases of glycosuric urine. When applied externally, it acts beneficially upon phagedenic ulceration, burns, fissures of the anus, excoriated fissures in the breast, when forming by chafing, bleenorrhagia, vaginal discharges, and in chronic eczema.

ART. 93.—*Treatment of Hæmaturia by Balsam of Copaiba.*

By Dr. BRUZELIUS.

(*Hygieia, Supplemtheft zu Band xxvi.*; *Schmidt's Jahrbücher*, No. 12, 1866.)

The patient was an anæmic woman, fifty-two years of age, who had been living under bad hygienic conditions, and had ceased to menstruate three years before; she had always been a healthy woman, and had never been affected with hæmorrhage from any other organ. Blood-stained urine was the only morbid symptom presented by this patient, and it was difficult to determine from what part of the urinary track it came. The amount of blood varied at different times, and occasionally almost wholly disappeared, the urine looking like the washings of flesh. From

microscopic examination of the deposit no ulcerative processes could be demonstrated in the urinary passages. The kidneys and bladder were not tender on pressure, and a sound could be easily passed without giving pain. The patient kept her bed for one month, during which time all the usual remedies were tried, but without success. The hæmorrhage, however, very soon ceased after balsam of copaiba had been prescribed in doses of forty drops, to be taken three times in the day; the same result took place when, in consequence of the hæmorrhage returning after the use of the medicine had been suspended for a few days, it was prescribed a second time. It was by the use of balsam of copaiba that a permanent cure was attained. Turpentine, so frequently used as a hæmostatic, certainly had in this case good effect after it had been given for two or three days, but the digestion of the patient became so affected that its use was obliged to be suspended, and recourse was again had to the balsam of copaiba.

Prof. Malmsten states that he has seen a similar result which followed the use of copaiba alone in a woman who was suffering from hæmaturia which had its origin probably in varicose vessels in the bladder.

ART. 94.—*On the Treatment of Delirium Tremens by
Indian Hemp.*

By HENRY J. TYRRELL, F.R.C.S.I., M.R.I.A., &c., Surgeon
to Jervis Street Hospital.

(*The Medical Press and Circular*, March 13, 1867.)

Mr. J. K., aged forty, was admitted into Jervis-street Hospital on the 15th of January last.

Upon examination I found him in a very excited, nervous condition; his pulse 90, very weak and compressible, pupils dilated, tongue covered with a white creamy fur, stomach very irritable, bowels confined, urine scanty and high coloured—sp. gr. 1020—skin cool but sweating; although he had no sleep for the last three nights, still he was quite rational, and gave me the history of his case (which in this country is a very interesting and unusual one) with great accuracy and minuteness. He said he was not an habitual drunkard, and remains as long as eighteen months without tasting any kind of spirit, but that when the desire for drink comes on he is unable to resist it. Some years ago, to avoid taking any, he commenced to use opium, and soon he required as much as four ounces of the tincture daily, to keep up the excitement which was requisite to enable him to pursue his profession as a newspaper editor. At no time did the opium produce a soporific effect. As the opium was undermining his constitution he gave it up about a year ago, and was a strict temperance man until about a month before he came to hospital, but during the last month he consumed a quart of brandy daily. He stated that he had had delirium tremens twice, and that on each occasion the Indian hemp

cured him, and that if I wrote to Dr. White, of Downpatrick, under whose care he had been, I would find he was speaking the truth.

As the use of opium was out of the question in the present case, I determined to give the capsicum treatment a trial, and accordingly I ordered two boluses, each containing thirty grains of capsicum—one to be given every third hour. His stomach rejected the first, the second he did not vomit; they did not give any relief, as on the next day, the 16th, he was much worse in every respect, had no sleep, and his mind was evidently affected. I ordered him three draughts, each containing $\mathfrak{m} \text{xx}$ of the tincture of cannabis indica, one to be taken every third hour. He had the first at four P.M.; after the second he became very excited; at eleven P.M. he got the third, and at one A.M. he fell into a deep sleep, which lasted about four hours.

When I saw him at ten A.M. on the 17th, he was quite a different man; the nervous excitement was gone; he expressed himself as quite well, but very weak and hungry. During the day he drank two pints of strong beef tea, and in the evening he took another draught, as he was afraid he would not sleep without it.

He remained in hospital two days longer to recruit his health, and left on the 20th quite well. As the treatment by the Indian hemp was so satisfactory, I wrote to Dr. White to test the truth of Mr. K.'s statement, and he kindly informed me that he treated Mr. K. on two occasions with the Indian hemp, and that the effect was marvellous. The dose he gave was forty drops every hour and a half, and that he was obliged to increase it to eighty drops before sleep was produced—altogether he used in the first attack one ounce, and in the second a little more of the tincture.

Whether there was a difference in the strength of the tincture, or that the attack for which I treated him was only beginning, it is remarkable that $\mathfrak{m} \text{lx}$ was only required.

I am not aware that the use of Indian hemp has been adopted in delirium tremens, at least I do not find it mentioned in the books I have consulted; and I certainly would not have prescribed it, had not the patient mentioned its use to me; and although opium-eating is very uncommon in this country, at least in hospital patients, still it is of great importance to have a medicine which may be used instead of it, when that drug is unsuited from idiosyncrasy or any other cause.

ART. 95.—*The Permanganate of Potash in the Treatment of Carbuncle.*

By THAD. L. LEAVITT, M.D., of Germantown, Pa.

(*American Journal of Medical Sciences*, Jan. 1867.)

The beneficial effects accruing from the local use of the permanganate of potash in the treatment of sloughing ulcers, phlegmonous erysipelas, and hospital gangrene, having been most thoroughly tested and proved during the last year of the war, in army hospital life, it occurred to

Dr. Leavitt that its peculiar remedial qualities would alike prove successful in that most painful and distressing lesion, carbuncle, originating as it also does from a depressed vitality, and a morbid condition of the blood. The most satisfactory and encouraging results have been obtained in the only cases in which he has had an opportunity to employ it.

The following cases are given :—

Mrs. R., æt. about sixty years, was visited, during the absence from town of her family physician, and found suffering terribly from a carbuncle located upon the left shoulder-blade, just above the spine of the scapula, and occupying the supra-spinous fossa. Loss of sleep, constant pain, and a naturally nervous temperament combined, induced a mental disturbance almost amounting to delirium. The tumour was in its sixth day, with all the general accompaniments, of the size of a hen's egg, tumid, tense, and shining. A free crucial incision had been made two days before, but with no relief; dense areolar tissue, puffy granulations, and sanious oozings crowded the track of the knife, with no appearance of separation or healthy action. The pulse was quick and compressible, 110 beats in the minute; countenance anxious and expressive of great pain. Bowels regular. A strong solution of the permanganate of potash (5ss to f̄j) was immediately applied with a brush, and a dressing saturated with it, covered with oiled silk, placed upon the shoulder. Anodynes, beef-tea, milk punch, tincture of the chloride of iron and quinia were administered. The same evening the patient was again seen, and expressed herself as feeling much relieved; pulse 98, and gaining in volume and elasticity. The next morning the dressing was removed, and already, although but twenty-five hours had elapsed, true pus had begun to form, the intense pain had subsided, and the patient, to use her own language, declared it "a miracle;" the pain had vanished, the fever was gone; she had slept well, and felt some appetite for food. A few days longer the potash was continued; the slough separated, and the wound healed in the short space of one week.

Mr. C., æt. fifty years, shoemaker, was visited July 30th, 1866. Had been sick three days, was found suffering intensely from a carbuncle situated upon the abdomen just below the umbilicus, of the size of a large walnut, and involving the surrounding structures in an erysipelatous inflammation. Bowels constipated; high fever; pulse 120; heavy breath; tongue furred; anxious countenance; great restlessness and general uneasiness characterized his principal symptoms. Hop and laudanum poultices had been applied, but he had been gradually growing worse, and approaching the condition described, the tumour increasing daily, the parts becoming more dense, and at last an ichorous pus exuded from several small openings. Mild purgation, after which supporting and stimulant treatment was instituted. A slight incision was made, and the permanganate applied, as in the previous case, the dressings being removed once in twenty-four hours. This case was seen seven days successively; the 13th of August he returned to his work, the severity of the suffering having been arrested after the first application.

Mrs. A., æt. about forty-nine years, having suffered a few days from a supposed furuncle, and the pain becoming intolerable, called in medical aid. There was found upon the inner face of the left thigh, just below the nates, a well-marked, though small carbuncle; a very slight incision was made and the potash dressing used. No constitutional treatment at all was inaugurated; in three days all signs of carbuncle had disappeared, and the line of incision was healing nicely.

The following case of many years' duration, and which had resisted all efforts, yielded to the remedial properties of this preparation :—

Arthur M., tavern-keeper, æt. forty-five years, had a chronic indurated ulcer of sixteen years' standing, extending over the superior face of the right leg about four inches below the tubercle of the tibia, and spreading backward on both sides to the malleoli, covering a surface of about twenty-eight square inches, deep and burrowing in some localities, and in others merely superficial; the whole leg and foot were much swollen and anasarcaous, the toes merely protruding from a shapeless mass of flesh closely resembling the foot of a young elephant. An ichorous discharge of a horribly offensive character, together with filthy dressings, augmented the destruction of the surrounding parts.

The advice of an eminent surgeon had been secured a few weeks previously, to the effect that but one alternative remained, amputation; and indeed all appearances favoured such a decision. Proper abstinence, tincture of iron, and good diet were directed. The local use of a strong solution of the permanganate of potash and judicious bandaging have already done so much for this case that, at the date of writing, the tenth application of the potash, six square inches will more than cover the small amount of ulceration remaining, so rapid have been the healing process and the formation of firm healthy tissue; and, in a few days more, we can confidently prognosticate a complete cure.

ART. 96.—*Bromide of Potassium in Epilepsy.*

By HORACE Y. EVANS, M.D.

(*American Journal of Medical Sciences*, January, 1867.)

Dr. Evans relates the three following cases of this disease out of eight within his knowledge, treated with the bromides :—

CASE 1.—Farmer, æt. thirty, living in a miasmatic region. Enjoyed perfect health until attacked with ague; was treated with quinia, and the chills checked. Then followed convulsions, which at first resembled, as far as the pulse was concerned, apoplexy, but soon became clearly epileptic. The attacks returned at irregular intervals of from seven to ten days. He had been carefully treated with remedies such as the symptoms from time to time indicated. When he came under my care he was using tonics and alteratives, and ice-bag to the spine. His pulse was 98, full and strong, tongue furred, bowels sluggish, disgust for food, very restless, severe headache, and marked mental confusion. I continued the ice-bag to his spine half an hour daily, ordered saline purge every day, and farinaceous diet. He was very soon visited by another convulsion, which left him in a dull melancholy condition, severe headache and insomnia, but no paralysis; commenced next day with the bromide of potassium, gr. xv, three times a day; continued the saline mixture, ice-bag, and restricted diet. An improvement in all the symptoms commenced within twelve hours, and at the expiration of four weeks the patient was apparently well; there was no return, or tendency to return, of the convulsion. All treatment was then omitted, and at the expiration of seven weeks from the commencement of the treatment, considering himself well, he returned to the use of animal food, which was followed within ten hours by the most severe epileptic fit of any that he had

had, and two days later by another. He then returned to the city, and was again put upon the use of the bromide and the ice-bag. As at first, the improvement was rapid, and at the expiration of a fortnight, without my consent, omitted all treatment. He returned to the country, used promiscuous diet, and has now passed through the fever season of the locality without ague or convulsions. Says he was never in better health than at present.

CASE 2.—G. M., a young man twenty-one years of age, apparently in a good physical condition, has had epileptic convulsions for the past fifteen years, and at the time of commencing his treatment (March, 1866) he was having, on an average, three attacks a day. He was ordered a saline purge twice a week, ice-bag to spine one hour daily; bromide of potassium, gr. xx, three times a day, and total abstinence from animal food. The interruption in the attacks was immediate; he continued without even an "aura," or any other evidence of the presence of the disease for nine consecutive weeks.

The peculiar effects of the bromine, named by Bazire bromism, having now become developed, the drug was omitted for two days, Huxham's tincture of bark and a more liberal diet substituted. Before the end of the second day a severe convulsion returned, and was followed by numerous aura epileptica, or minor "spells." The bromide was immediately resumed, and its use continued for three weeks without a return of the disease. The increased flow of saliva, sore throat, and restlessness again gave premonitions of the return of bromism. The dose was now reduced to gr. x, ter die. Again the lurking foe took advantage of the truce and made several sorties, which were repulsed by the bromide of ammonium, with the iodide of potassium as an ally. Another month now elapsed without an attack, but the combination last used became so offensive to him that it had to be omitted, and the bromide of potassium resumed in gr. xx doses, which is now (November) being used with results beyond the most sanguine anticipations.

CASE 3.—Mrs. S. B., æt. twenty-eight, the mother of two children. Insanity and epilepsy in her family. After a serious family trouble, was attacked with convulsions at intervals of a fortnight. The disease was diagnosed hysterical epilepsy, chiefly on account of the long duration of the convulsion. The usual treatment for hysteria scarcely palliated the insomnia and almost delirium during the intervals. Having seen an account of Locock's treatment of this disease with the bromide of potassium, I was induced to give it a trial. She commenced with gr. xx doses three times a day, and an additional dose at night, if necessary, to produce sleep. Within a week every vestige of the disease had vanished. The medicine was continued in reduced doses for a month, after which it was entirely omitted. Four months have since passed without a symptom of hysteria or epilepsy, notwithstanding the continuance and actual increase of her family troubles.

ART. 97.—*Treatment of Otalgia by Tobacco.*

By THOMAS C. OSBORN, M.D.

(*New Orleans Med. and Surg. Journ.*; and *Brit. Med. Journ.*, April 27, 1867.)

Tobacco as a remedy in otalgia is extolled by Dr. Thomas C. Osborn. The cases in which he resorted to it were mostly neuralgic, due to malarial influence. The first case was in a little girl in the second or

third hour of a quotidian paroxysm of otalgia. The mode of application was very primitive, and will probably not be adopted generally in practice. It consisted simply in conveying a quantity of the doctor's saliva, saturated with tobacco, into the patient's ear. In a few moments the patient was quiet, free from pain, and soundly asleep. The local use of tobacco in ear-ache has since passed into the hands of the people in the doctor's neighbourhood as a very efficient remedy.

Dr. Osborn also speaks very favourably of local applications of tobacco in cases of prurigo preputii, scroti, podicis, and pudendi muliebris.

ART. 98.—*Treatment of Intermittent Fever by Nitrate of Potash.*

By Dr. SAWYER, of Illinois.

(*St. Louis Med. and Surg. Journ.* ; and *New York Med. Journ.*, Feb. 1867.)

Dr. Sawyer states that he has used nitrate of potash with great success in the cure of intermittent fever, even where quinine has failed. He administers it in ten-grain doses, with $\frac{3}{4}$ ss of brandy or water ; or, if more agreeable to the patient, the powder may be placed on the tongue and allowed slowly to dissolve. He says:—"I deem it a specific in ague, and have never failed to arrest the paroxysm, if uncomplicated. You will also find that the patients are less liable to relapse than when cured by quinine. In the cold stage, if administered in a full dose, and the patient be placed in bed and covered with blankets, he will in a few minutes experience considerable heat, which will be followed by copious perspiration, and every unpleasant feeling will vanish." The action of this medicine more closely resembles nature's mode of curing the disease in question than any other plan, as she cures by copious diaphoresis as well as diuresis ; or, in other words, by elimination.

ART. 99.—*Severe Colic and Constipation ; Beneficial Effect of Belladonna.*

Under the care of Dr. MURCHISON.

(*The Lancet*, January 19, 1867.)

Belladonna is much more frequently had recourse to in the treatment of constipation abroad than in this country. The beneficial effects which appeared to result from its use in the following case were very remarkable.

"Ellen L., aged twenty-seven, married for three years, but without any family, and catamenia regular, was admitted into the hospital on the 28th of December, 1866. She stated that she had always enjoyed good health, with the exception of an attack similar to the present one about two years before. On that occasion she had been ill for nearly three months ; she had taken enormous quantities of purgatives, and yet

for three weeks she had passed nothing from her bowels. She had never had jaundice or passed blood in her urine, and no one living in the same house had on either occasion suffered from similar symptoms. The present attack commenced ten days before admission, with severe pains in the abdomen, of a paroxysmal character, and always worse at night. From the first the attacks of pain had often been accompanied with violent vomiting; but for seven or eight days the bowels had acted daily. For at least two days before admission the bowels had not acted.

"On admission, the patient was in great distress with pain in her abdomen and back, which bent her up double. The pain was paroxysmal, but the paroxysms followed one another in rapid succession. She described the pain as shooting from the abdomen down the anus, as well as the legs. The urine contained no blood. There was not a trace of jaundice, and no tenderness of abdomen; but the paroxysms of pain were accompanied by violent retching and bilious vomiting. The pulse was 72; the skin felt cool; no external hernia could be discovered; and there was no blue line along the edge of the gums. The patient on admission was ordered a warm bath, poultices with laudanum to the abdomen, a large castor-oil enema twice a day, and a draught every four hours containing twenty minims of laudanum and of chloric ether in an ounce of peppermint water.

"On Dec. 30th she had taken in the course of two days nearly half an ounce of laudanum, besides having a quarter of a grain injected into the skin; and she had had five copious injections of gruel and castor-oil, and two warm baths. But there had been no action whatever of the bowels, and the vomiting and pain continued as urgent as ever, so that she had had no sleep since admission. In addition, the pulse had risen to 108, the skin felt hot, the patient was more depressed, and there was decided tenderness in the left groin. Twelve leeches were now ordered to be applied to the abdomen, followed by linseed poultices; and a mixture was prescribed, consisting of castor-oil, half an ounce; liquor potassæ, twenty minims; tincture of opium, twenty-five minims; and peppermint water, an ounce and a half: to be taken every sixth hour.

"The tenderness of the abdomen was considerably relieved by the leeches; but on Jan. 1st the patient had taken eight doses of the mixture, or four ounces of castor-oil and nearly three and a half drachms of laudanum, which had been retained, but without any action of the bowels, and with but little relief to the pain or vomiting. The patient was now ordered a pill containing half a grain of extract of belladonna every four hours, with belladonna ointment to the abdomen, a warm bath at night, and a castor-oil enema twice a day.

"On the following morning, after taking four of the pills, and the pupils being moderately dilated, the patient had a copious feculent motion. This was the first action of the bowels for at least a week, and from that moment the pain and vomiting subsided. The pills were repeated twice daily, and the bowels continued to act regularly and copiously. On Jan. 8th the patient was discharged well."

The most probable cause of the colic in this instance Dr. Murchison believed to be the accumulation of fecal matter in the bowels, and for the following reasons. Before the bowels acted a doughy mass could

be felt between the umbilicus and the left groin, which, on Dec. 30th, was the seat of considerable tenderness, and when the bowels began to act, large quantities of feculent matter were passed. It is well known that enormous accumulations of fæces may take place in the intestine, notwithstanding that the bowels act daily. A remarkable case of this sort is recorded by Frerichs, in which the accumulation was mistaken for pregnancy or an enormous tumour of the liver.*

Although the pain was referred to the back as well as the abdomen, the absence of blood or albumen from the urine, and the immediate cessation of the pain on the bowels acting, negated the idea of nephritic colic.

The situation of the pain, the age of the patient, and the complete absence of jaundice, were opposed to the notion that it was biliary colic.

The fact that the patient had both attacks in the same house raised the suspicion that the symptoms might have been due to lead; but opposed to this view were the following considerations:—

1. No other person in the same house had suffered from similar symptoms.

2. In the interval between the two attacks the patient herself had not suffered from colic.

3. The characteristic blue line of lead was absent from the margin of the gums. The edge of the gums was tumid and unusually red, but there was no blue tint.

ART. 100.—*Experiments with Hemlock.*

(*The Lancet*, March 23, 1867.)

The medicinal properties of hemlock, though vaunted at different times, its title to be considered as a valuable addition to our Pharmacopœia has not been very clearly made out. Dr. John Harley is doing good service to medicine by patiently experimentalizing with conium, with a view to obtaining some definite knowledge of its reputed virtues. He has already shown that the *tinctura conii fructus* (P.B.) and the *tinctura conii* (P.L.) may be taken with impunity in two fluid ounce doses, and that the only apparent effects resulting from the exhibition of so large a quantity are those of stimulation by the alcohol.

As a general consequence of his latest investigations, Dr. Harley condemns the use of any part of the dried plant in medicine, and does so without hesitation, since, from experiments upon himself and others, he has been able to show that the *succus conii* of the British Pharmacopœia is in all respects a most efficient preparation, and one which possesses in a powerful degree the poisonous properties of hemlock. He described at a recent meeting of the Pharmaceutical Society the following effects of the succus, prepared by Mr. C. F. Buckle, of Gray's-inn-road, upon himself:—

“Dec. 10th, at half-past eleven A.M., I took two fluid drachms with a little water, and remained quiet. No effect followed.

“Dec. 11th, at half-past ten, took three fluid drachms. Three-

* *Diseases of the Liver*, Sydenham Society's Translation, vol. i. p. 69.

quarters of an hour afterwards a heavy clogging sensation in the heels was suddenly experienced. This effect became very decided, and was clearly due to direct impairment of muscular power. On putting a foot upon the scraper at the door of the hospital, the other leg felt almost too weak to support the body. A sensible exertion was required to effect the muscular movements, and they seemed to be heavily and clumsily performed. Giddiness was induced by looking at a blazing fire at the distant end of the ward, and this appeared to be due to want of power in the muscular apparatus of the eye to fix the gaze firmly enough to get a good definition. Two hours and a half after taking the drug the effects had totally passed off, and I walked away briskly a distance of two miles. The maximum effect was apparent about one hour and a quarter after taking the dose.

"Dec. 17th, at a quarter to eleven, I took five drachms and a half of the succus. Three-quarters of an hour afterwards disorder of vision suddenly came on: it was a feeling of giddiness, induced by shifting the eyes from one object to another. So long as the eyes were fixed upon an object, the capacity of vision for and definition of the minutest objects were unimpaired, but the instant the eyes were directed to another object all was haze and confusion, and in order to remove these effects it was necessary to rest the eyes upon a given object, and there retain them with fixed gaze. It was clear to me that the adjusting muscular apparatus of the eye was enfeebled, and that its contractions were so sluggishly performed that they could no longer keep pace with those of the external muscles of the eye. At a quarter to twelve the derangement of the muscular apparatus of the eye was much increased, and the implication of the third nerve was still further indicated by great dilatation of the pupils and approaching paralysis of the levator palpebræ muscles. It now required considerable effort to raise the eyelids, and a general muscular lethargy rapidly spread over the body. At twelve at noon I first felt weakness in the legs, especially apparent in the hamstring muscles. At this time I was cold, pale, and tottering, and afraid to retain the sitting posture lest the muscular lethargy should get the better of me, and result in general paralysis. I therefore walked about, and tested the strength of my tottering legs. The mind remained perfectly clear and calm, and the brain active, while the body seemed heavy and well-nigh asleep. There was, in fact, a direct diminution of power in all the voluntary muscles, almost amounting to paralysis; and of all the motor nerves, the third was the earliest and most deeply affected. At one time it required the greatest effort to raise the eyelids. On the first sudden approach of the above-mentioned effects, the action of the heart was, most probably from a feeling of alarm, considerably excited, and the pulse was small. Tranquil action was restored in a few minutes, and the pulse remained regular, and numbered sixty-eight. At two P.M. all effects of the conium had passed off, and the rest of the day was employed in active mental and bodily occupations."

The author stated that so far as his inquiries went, he found that the extract—even that which had been most carefully prepared from the powerful succus employed in the above-described experiments—contained but a trace of conia, and appeared to be destitute of active pro-

perties in ordinary doses. Having distinguished the useless from the useful preparations of conium, the author concluded by expressing a hope that the former would be excluded from the *Materia Medica*, and that practitioners would rely upon the succus alone; which, in the smallness of the dose, in almost complete absence of taste and colour, and in certainty of action, combines all the requisites of a useful and valuable medicine. Such experiments as these are most valuable. Nothing is more needed now-a-days than a critical re-examination of the properties of vaunted remedies.

ART. 101.—*Habits of Social Life leading to Indigestion.*—*Tea.*

By THOMAS KING CHAMBERS, M.D., Honorary Physician to
H.R.H. the Prince of Wales.

(*The Indigestions or Diseases of the Digestive Organs functionally Treated.*)

The following case, illustrative of the pernicious consequences of excessive tea-drinking, is extracted from Dr. Chambers's clinical lectures at St. Mary's Hospital:—

“Maria D., a spinster of thirty-two by her own confession, but probably older, has been a general servant in a light place for several years. She has been happy, and has enjoyed pretty good health, interrupted only by occasional headaches; but for some time lately things have seemed to annoy her more than they ought to do. Three months ago she had a bad ‘bilious’ headache, which was followed by some paroxysms of laughing and crying. Five weeks back she had an attack of diarrhoea, from which she got better, and went to work again in spite of weakness, for she was loath to let her mistress want her. But exertion was in vain, for she no sooner tried to clean a grate than she fell down speechless, and had a succession of hysterical fits, losing her senses, but not biting her tongue. Then she began vomiting everything she took, and this had been going on for three weeks, and seemed to amount to a complete rejection of all her food immediately it was swallowed. When we saw her there was excessive flatulence, the air bursting up from the stomach in roaring eructations while one was talking to her.

“In this woman, the effect of the wide pupil and sympathetic hæmoptysis is not hidden even by the disfigurement of blear edges to the eyelids, and it quite accords with the droll earnestness of her manner, which increases gradually as you let her go on talking about herself, leaving no doubt of her strong hysterical diathesis.

“As to the cause, it would seem that for some years she has become more and more addicted to tea-drinking. She confesses to caring for little else, so long as she could get her favourite food or physic—or poison—I do not know exactly how to call it. Her mistress was quite angry with her for eating so little meat; and, with a far-sighted economy not common in her class of life, took much trouble to keep up the health of a faithful servant. But the weakened stomach refused meat, and she was literally starving in the midst of abundance.

"Much ill-health," Dr. Chambers says, "arises among women of the lower orders in this country from the custom of sluicing themselves with tea. I am not aware if similar results follow in Holland and Portugal, the only other tea-drinking populations in Europe. Want of appetite for the quantity of coarse albuminous food necessary to working people is induced. In the upper ranks not so much harm is done by the five o'clock kettle-drums and similar sloppy proceedings, now so common, because their bill of fare is more attractive to the palate, and they usually get as much flesh food as is good for them in spite of it. Tea seems more injurious to the stomach in the usual form of infusion than otherwise. I remember some years ago being puzzled on viewing lives for insurance by some singularly-coloured tongues which I saw in those who came before me. On inquiry, I found their occupation was 'tea-tasting' for the greater part of the day. Now, tasting tea is performed partly by sipping some of the infusion, but principally by sniffing up the aroma into the nostrils, and chewing a few leaves in the mouth. I was given to understand that they sometimes found themselves nervous after a long day's work, that possibly the hand might shake a little in those who worked too hard, and that the tongue acquired this curious, smooth, orange-tinted coating, but that the digestion and appetite did not suffer from the trade."

ART. 102.—*On the Indiscriminate Use of Alcoholic Stimulants in Disease.*

By SAMUEL WILKS, M.D., Physician to, and Lecturer on Medicine at, Guy's Hospital.

(*The Lancet*, April 27, 1867.)

In a clinical lecture delivered at Guy's Hospital on the above subject, Dr. Wilks said, "To my mind, the most important question in therapeutics at the present day is the value of alcohol in disease. If it be said that its frequent use is an evidence of its potency, this is the more sufficient reason why its administration should be watched with the extremest care. Like other drugs, it may be beneficial, useless, or harmful. Fevers will do well without this remedy. So wedded, however, are some to the idea of the absolute necessity of stimulants, that they have expressed almost incredulity when they have heard it stated that fevers will terminate favourably without them. Of course stimulants are often needed; but young persons with typhus and typhoid do far better, I believe, without them. That they make good recoveries on simple milk diet is a fact which my hospital cases prove, and which no arguments can gainsay; and, on the other hand, I have seen a marked improvement take place in some cases where a stimulus has been left off. It is also a fact that in bronchitis I have repeatedly seen improvement after stimulants have been omitted; and, as regards heart-disease, I am convinced that the amount of mischief done by stimulants is immense. In the case of fevers and bronchitis, the weak pulse is often but an indication

of extreme capillary congestion, and a stimulus to the heart only aggravates the evil; and in the case of a diseased and weak heart, where repose is indicated, a constant stimulation by alcohol adds immensely to its trouble.

"It causes me daily surprise to observe how the effects of stimulation are overlooked. Often have I been called to see a patient apparently dying, sometimes of a nervous disorder, at another time of a liver complaint, and at another of heart-disease. He is lying in bed, where he (or she) has been for some time, and kept alive (as it is said) by brandy; the breath is abominably fetid; the heart's action is so rapid that it is impossible to say whether the organ is diseased or not; the patient refuses food, or if this be taken, it is rejected, and so he is plied with brandy to keep him alive; the body is, in fact, saturated with spirit, or its elements. My first remark on seeing such a case is, that a man cannot live on alcohol; he must take some food, or he will die. The correctness of such common-sense remarks is admitted, but qualified with the statement that no solids can be taken, and that if stimulants be omitted, it is feared the patient will sink. It is assumed that the constant administration of brandy is necessary for the temporary maintenance of life, and the idea never seems to have been conceived that the stimulation of the heart causes the weak, fluttering pulse, and the stimulation of the stomach a subacute gastritis. Do you ask me what method I adopt? The simplest possible. I withdraw every drop of the stimulant, and in a few hours the irritated stomach is partly restored to its normal condition, the nervous excitement abates, the patient takes a little food, and begins to mend. Do you ask, again, whether I do not fear any frightful results from the sudden withdrawal of the stimulus? I say, not the least; I have no fear of the consequences. Not of delirium tremens? Not in the least. This is a disease not induced by the withdrawal of stimulants, but, on the contrary, is produced by a recent debauch. For the production of delirium tremens the patient must have been such an habitual tippler as to have weakened his brain, and must then have had an overdose of the stimulant to set up the disease. There are no facts to show that the withdrawal of the accustomed drink is attended with any evil results, although I know that an imaginary fear of this kind leads to an erroneous and vicious method of treatment—the plying the patient with a stimulant during the violence of the attack, the effect of which is to prevent or prolong the cure. Rest and repose, with the avoidance of stimulation, is the treatment which the patient requires. The success of digitalis may be mentioned in corroboration of this view. I repeat that there are no facts to show that delirium tremens is produced by the withdrawal of stimulants, whilst it is a fact, as I could illustrate by many cases, that nothing but good results from its absolute discontinuance in the desperate cases to which I have alluded.

"That many cases of disease of various kinds would do far better without stimulants I am perfectly confident. But lately I have seen the case of a gentleman, about sixty years of age, who passed through a most severe attack of pneumonia without the use of stimulants. He had been a tolerably free liver, and would not have been called a good subject; but having before me the case of another gentleman of the

same age, who had just died of pneumonia, and who had taken a large quantity of brandy, I readily acquiesced in the patient's own view, that none should be given. It is very remarkable what extremes we have reached, and on how slight a scientific basis is founded the treatment of pneumonia. Not many years ago the antiphlogistic method was adopted, including bleeding, antimony, calomel, &c.; then came the 'let alone' method; and now we have the brandy treatment. What the need of this can be with Professor Hughes Bennett's statistics before us, I do not comprehend. My own opinion is (but of course this is only an opinion), that in any given number of cases a larger majority would recover under the old antiphlogistic treatment than by the more modern method by brandy. As regards heart-disease, the utmost discrimination is required in the use of stimulants. There are cases where an undoubted benefit is produced by them; but there are others, and these I have seen repeatedly, where alcohol has induced palpitation, fluttering, great distress, and constant sleepless nights, but where, on the other hand, the withdrawal of the spirit, and the substitution of a dose of digitalis or henbane, has been of the most essential service. The administration of a stimulus, in the attempt to overcome disease, in lieu of good and well-tried remedies, evinces the very worst form of medical scepticism with which I am acquainted.

"It is not only in these severe cases of disease, but in lesser troubles, that your recommendation of stimulants may do incalculable mischief. You visit, for example, an ailing lady, and she details to you a number of troubles of a nervous and dyspeptic character. She is sitting in-doors all day, taking no exercise, living well, and consequently drifting into a weak and flabby condition. You place your hand on her pulse, and, finding it feeble, condole with her on her state of health, assure her that she does not live well enough, and order her a few extra glasses of wine or a little brandy.* You find that she grows no better for the advice; but perhaps you never reflect that you have been adding fuel to the fire. Knowing not what to do in the way of treatment, you order her out of town, and she immediately begins to improve. She goes to Brighton, rides on horseback or walks miles a day on the Parade, regains her appetite, craves less for stimulants, and her health is restored. If, on the contrary, you fail to remove her from her home, she goes on from bad to worse; she takes to her bed, eats less food, drinks more wine and brandy, until, having become one mass of fatty degeneration, life can hold no longer, and death ends the scene. This lady has been killed with kindness. This is no imaginary case; my mind's eye is carrying me to the bedside of more than one such instance. Do not

* "The word 'little,' it must be remembered, has long ceased to maintain its original signification in reference to eating, drinking, and physicking. It would be extremely vulgar were we to be asked at our dinner-tables to take otherwise than a 'little' more; and the doctor would not be forgiven by his patient were he, in detailing the ingredients of his prescription, to state that he had administered the regular dose, but that he had given only a 'little' of this or that. When therefore a patient is ordered a 'little' brandy, the adjective in no way qualifies the amount."

then assume that alcohol is an equivalent to a tonic, and that it must be necessarily administered because your patient is weak. It may be that that very weakness is due to the long-continued pernicious effects of this same stimulant; indeed, as you have often heard me say in the out-patient room, if a man comes into our presence with a tottering gait, bloated face, and his nervous energy all gone, you may be quite sure that he has been taking 'strengthening' things all his life."

PART II.—SURGERY.

SECT. I.—GENERAL QUESTIONS IN SURGERY.

ART. 103.—*On Surgical Poisoning.*

By M. MAISONNEUVE.

(*Archives Générales de Médecine*, Février, 1867.)

M. Maisonneuve commenced a paper, read before the Académie des Sciences, with this proposition: *out of 100 patients who succumb to sequelæ of surgical operations 95 die poisoned.* In fact, the majority of patients who have undergone operations succumb to some one of those affections known by the name of phlebitis, angioleucitis, erysipelas, diffuse phlegmonous erysipelas, gangrene, surgical fever, puerperal fever, &c.

M. Maisonneuve believes that he is able to establish the following facts:—1. That all these different affections are really varieties of poisoning. 2. That it is possible to specify their real plan of action. 3. That in the present state of science, the surgeon has it in his power to prevent their development in the majority of cases, either by preventing the formation of the poison, or by neutralizing or evacuating it when it is present, or finally, by occluding effectually the passages along which it may penetrate.

The theory of surgical poisoning consists in looking upon the febrile affections which follow traumatic lesions as the results of a poisoning caused by the introduction into the circulation of toxic agents formed by the organism itself. Having brought forward the fact that the living juices, blood and lymph, putrefy and acquire intensely septic qualities when they are exposed to the air and lose their vital properties, and that the same change takes place in certain excretory fluids (urine, bile, liquid and gaseous evacuations), M. Maisonneuve states that these poisonous agents may, on the one hand, by acting directly upon the tissues with which they are in contact, produce erysipelas, angioleucitis, and phlebitis; and, on the other, may, by being absorbed, cause disturbance in the whole of the body (surgical fevers); finally, that after they have passed away from the large blood-vessels, they may, by remaining in the capillary networks, become the cause of a number of secondary disorders (metastatic affections), as erysipelas, anthrax, parotitis, abscess, &c. M. Maisonneuve thinks that the surgeon may prevent putrefaction of the exuded juices, or may produce effectual closing

of the orifices by which putrid elements can be absorbed, by resorting to the following operative methods:—1. Subcutaneous incisions. 2. Caustic arrows. 3. Forcible tearing or torsion. 4. Elastic or digital compression. 5. Injections into closed cavities. 6. Antiseptic dressings.

ART. 104.—*Cases that Bone-Setters Cure.*

Clinical Lecture delivered at St. Bartholomew's Hospital by
JAMES PAGET, Surgeon to the Hospital.

(*British Medical Journal*, January 5, 1867.)

In speaking of the cases that bone-setters cure, Mr. Paget said, in a highly interesting and instructive lecture, "I believe that, in the large majority of cases, bone-setters treat injuries of joints, of whatever kind, with wrenching and other movements of them. The proceeding was described to me lately by a gentleman who had a well-marked fracture at the lower end of his radius. He had been to a distinguished bone-setter, who, with a glance at the wrist, said: 'You ha' put out your wrist, that's what you ha' done;' then violently stretched and moved the joint; then said: 'Now you go and hold that under my pump;' and, after the cold douche, took his fee. The fracture, being none the better for this treatment, was, at a second visit a few days later, again wrenched, pumped upon, and paid for. But, this time, much pain and swelling followed; and the patient had the wisdom to call himself a fool, and to go to his usual medical attendant, who sent him to me.

"Cases of this kind are of frequent occurrence. To the bone-setter, every injured joint is 'put out;' and the one method of cure is the wrench and the rough movements, by which it is said that the joint is 'put in' again.

"Now, it would be of little use to us to estimate, even if it were possible, the quantity of mischief done by treatment such as this. It is more important to know and consider that it sometimes does good; that, by the practice of it, bone-setters live and are held in repute by the ignorant of all classes everywhere; and that their repute is, for the most part, founded on their occasionally curing a case which some good surgeon has failed to cure. For here, as in all similar affairs, one success brings more renown than a hundred failures or mischiefs bring disgrace. The patients who are cured never cease to boast of their wisdom in acting contrary to authorized advice; but they who are damaged are ashamed of themselves, and hold their tongues.

"What, then, are the cases that bone-setters cure with their practice of wrenching?

"First, of course, they have a certain number of real fractures and dislocations which they reduce, and of old ankyloses which they loosen. Of these I need say nothing; for I believe there is nothing in their practice in these cases which is not as well, or better, done by regular surgical rules.

"Next, there is a rare accident which a wrench may cure, and which,

if you are not on your guard, you may fail to make out; namely, the slipping of a tendon. I have known the tendon of a peroneus longus slip to the front of the outer malleolus; and an extensor tendon of a finger slip over the heads of the metacarpal bone and first phalanx; and here, from our museum, is the long tendon of a biceps slipped from its groove. Of these accidents, the first two may be made out by feeling the displaced tendon and the gap where it should be; the third may be at least guessed at by the signs which Mr. Soden has pointed out in his case, related in the *Medico-Chirurgical Transactions*; the slight forward prominence of the head of the humerus, its drawing up under the acromion, and the pain at the lower end of the biceps on stretching it. As to this displacement, however, I doubt whether it would be ever so certainly made out as to be fairly reduced; the others, at the ankle and the finger, should be remedied by relaxing the slipped tendon as extremely as possible, and replacing it with lateral pressure and sudden stretching.

"Some other tendons may slip, I believe, like these; the tendon of the popliteus appears very likely to do so; and I can hardly doubt that a bone-setter has occasionally done, unwittingly, a lucky trick, when, with wrenchings and twistings of a joint, he has made some dislodged tendon slip back to its place.

"But there is a set of cases much more common than these, which may be cured with wrenching and rough movements; namely, the so-called internal derangements of joints. The knee-joint is by far the most frequent seat of this injury, whatever it is; but the like occurs in the lower jaw-joint; and I have known very similar signs of injury at the hip and elbow. The most marked sign is that, while the joint is being moved in some ordinary action, something is felt slipping or suddenly caught between the bones, and a great pain comes, and the joint is locked. It will move in one direction, not in the opposite one: just like a hinge with a stone in it (as a patient described it to me). The locking of the joint, which is, usually, at moderate flexion, is soon followed by effusion of fluid into it, and other signs of more or less acute inflammation of the synovial membrane; and, if nothing be done, these last for some days, or even for some weeks, before, with subsidence of the inflammation, the joint gradually regains mobility.

"Many of these symptoms are like those due to a loose piece of cartilage in a joint—a much rarer condition. But, with loose cartilages, joints are not, I think, often locked for any length of time; they are stopped with extreme pain when the cartilage gets between the bones, but it soon escapes, and they go again. In some of the cases of what I am calling locked joint, at the knee or lower jaw, it is probable that one of the interarticular cartilages slips and is nipped between the bones. We have, in the museum, a cast from a knee in which it is certain that this happened. But in some cases it seems more likely that a fold of synovial membrane, or a portion of capsule, is caught and nipped. However we may explain the accident, it is one of those that may be cured by the bone-setters. Such movements as theirs are not, indeed, necessary; and none should be practised recklessly or without plan; but force may be requisite, and, if used knowingly, will certainly set a locked joint right again.

"Sometimes a patient learns for himself how to unlock his joint, and can do it gently, first, in the case of the knee, bending and then with slight rotation slowly stretching it. But he may need more force than he can use for himself; and you may apply it better than a bone-setter can.

"In the case of the knee, the 'lock' usually takes place with the joint moderately bent and the leg rotated outwards. You must unlock it by extremely bending the joint, then rotating the leg inwards, and then suddenly and forcibly extending it. In the same manner, for any other joint that appears to slip and lock, you must observe the direction in which the patient can easily move it, and the direction in which movement is impossible or very painful; then you must move it, first, extremely in the former direction, and, secondly, forcibly in the latter. The manœuvre is sometimes extremely painful; and the force required for success may be greatly augmented by muscular resistance. In either case, the use of ether or chloroform may ease both the patient and yourself.

"A fourth set of cases that may be cured with wrenching, or other forcible movements, includes those in which injured joints are held stiff, or nearly stiff, by involuntary muscular action. You may meet with such cases in patients of any age; but they are most frequent among the young. Sometimes after well-treated fracture near a joint; sometimes after a sprain; sometimes when a joint has been hit hard—stiffness remains, which is due solely to muscular action; and this stiffness in some cases is constant, and in others ensues on slight attempts at motion.

"Any joint, I believe, may be in this condition at any time after an injury. I have seen it at the elbow, shoulder, cervical spine, hip, knee, and ankle; in some instances a few hours after the injury, in some, several weeks. You may know this muscular kind of stiff joint by this, among other signs: that the stiffness is not a dead block, as if by meeting of displaced bones, nor has rigid resistance, but yields a little, as if with the 'giving' of a firm elastic substance which instantly recoils. Besides, you may generally feel the muscles in action; not hard and vibrating as if with all their force, but firm, steady, and resisting. If, however, you have any doubt about the diagnosis, chloroform will settle it. As soon as the patient becomes quite insensible, the muscles relax, and the previously stiff joint becomes freely moveable.

"Herein appears the best mode of cure. Bone-setters violently move the joints against the muscular resistance till the muscles are wearied and beaten, and you may do the same; but the proceeding is very painful, and often needs a painful repetition. A far better plan is to have the patient under chloroform, and move the joint quietly, and then to confine it with splints in a posture opposed to that in which it was stiff. After a few days, it may be moderately exercised, douched, and shampooed; but in the intervals of this treatment the joint should be confined with the splints, if it should appear to be becoming stiff again.

"You may sometimes see another condition, very like this involuntary muscular rigidity of joints, in young children. If one of its limbs be hurt, a young child will sometimes hold the limb steadily in one position, and complain if it be moved. Thus, a child whose thigh has been

strained will stand on the other leg and keep the hurt thigh lifted up, as if for extreme disease of the hip-joint; or, for similar hurts, will, for even many days, keep its arm close to its side, or its elbow-joint steadily bent.

"Perhaps some of these cases are the same as those I last spoke of; but in many of them the muscular fixing of the part has seemed to me not involuntary. It is more like a trick, or an instinct of fright, lest the part should be hurt again. Certainly, the muscles relax instantly in sleep, and not unfrequently when the attention is distracted from them.

"I suppose that bone-setters would cure this state with their panaceal pulling; but, happily, they are allowed to have but little practice among children. Happily, I say, for children's joints are much more imperilled by violence than are those of older patients; and you cannot be too cautious in concluding, when a child holds a joint fixed, that there is really no disease or serious injury. All the evidence must be negative; and an oversight may be disastrous.

"However, you need not use any kind of force in this kind of contraction in a child. If the part be only allowed a few days' rest, it will get well; unless, indeed, it be seriously damaged, in which case you will have done well by avoiding all violence.

"In another set of cases, there is no doubt of the voluntary character of the muscular rigidity of a joint. You saw lately a girl in Lawrence Ward who wilfully resisted all movements of a hip that had been only slightly hurt. If a bone-setter had wrenched her joint, it might have served her right, and the pain might have cured her temper. But she recovered just as well when she saw that she did not deceive us and was not pitied.

"Now, among all these cases of muscular difficulty, there is a good harvest for bone-setters; and, without doubt, their remedy, rough as it is, is often real. Yours may be as real, with much less violence; and, with better diagnosis than they can ever make, you may do none of the harm that they often do.

"But there is a yet larger class of cases which bone-setters sometimes succeed in curing very quickly; namely, ordinary sprains.

"I cannot doubt that some recently-sprained joints may be quickly cured, freed from pain, and restored to useful power, by gradually increased violence of rubbing and moving. This method of treatment has many times been introduced into regular surgery; but it has never been generally adopted, or, I think, long practised by any one. I suspect that it sometimes does no good, and sometimes does harm enough to disgust an honest surgeon.

"I believe that the best mode of applying this plan of treatment is, to begin by handling, rubbing, and pressing the sprained part and its neighbouring structures very gently. After doing this for fifteen or twenty minutes, the rubbing and pressing may be increased in hardness, and the joint may be more freely moved, especially in the direction opposite to that in which it was forced by the accident. Another quarter of an hour or more thus spent is to be followed by rougher proceedings of the same kind, till even severe pressure and wide and violent movements can be borne without pain; and then, in an hour or

so, the cure is deemed complete, or so nearly complete as to require only a slighter treatment of the same kind on the next day.

"I cannot tell you in what kind or proportion of recent sprains you may employ this treatment; indeed, I cannot advise you to use it at all, unless by way of trial in very healthy men. For I do not doubt that it will sometimes do harm; and the greater quickness of cure which it may achieve is not worth a risk, while we can always employ such safe, and not slow, means as the combined rest and support of the sprained parts which are given by strapping or the starched or plaster-of-Paris bandage. In short, this rough-rubbing and hard-pulling treatment of recent sprains seems to me one of those dangerous remedies which, though I believe in their occasional utility, I would rather not employ till I can discriminate the cases in which they will do good from those in which they will do harm.

"Such discrimination, difficult as it may be among recent sprains, is not very difficult among old ones; that is, among cases in which the ill effects of sprains remain long uncured. It is among these cases that bone-setters, and especially those who combine rubbing and shampooing with their 'setting,' gain their chief repute.

"Among 'old sprains,' you will find a strange variety of cases—chronically-inflamed joints, each probably bearing the marks of the constitutional disease or unsoundness of its possessor; and loose joints, and slipping, and creaking, and weak, and irritable joints, and many more. To all these, mere bone-setting does harm, or no good; and rubbing and shampooing are of little, if any, use; indeed, to a really inflamed joint they would generally be mischievous. But among 'old sprains' are not a few cases in which a joint, after long treatment, remains or becomes habitually cold. It is generally stiffish and weak, sensitive, aching after movement, or in the evening or at night sometimes swollen, puffy, or œdematous, but not with an 'œdema calidum.' Whatever else it is, it is cold, or, at the most, not warmer than the healthy fellow-joint. Among these cold joints, bone-setters and rubbers gain, as I said, great repute; and all the more because they often get the cases after the patients have become tired and discontented with a rather over-careful surgery. Admirable as is the rule of treating injured joints with rest, such rest may be too long continued; and in every case in which it has done full good, it must, in due time, be left off. With rest too long maintained, a joint becomes or remains stiff and weak and over-sensitive, even though there be no morbid process in it; and this mischief is increased if the joint have been too long bandaged, and still more if it have been treated with the cold douche.

"I need hardly say that it may be sometimes difficult to decide the time at which rest, after having been highly beneficial, may become injurious; or that the decision is always a matter of grave importance. On the one hand, you and the patient may be losing time through over-caution; on the other, the risk may be incurred, through rashness, of renewing inflammation in a damaged joint. I believe you will be safe if you will take the temperature of the part for your guidance. If the part be always overwarm, keep it quiet; if it be generally cold, or cool, it needs and will bear exercise and freedom from restraint of

bandages, with friction and passive movements, and other similar treatment of the reviving kind. And of this you may be the more sure when the cold integuments over the joint are dusky pink or purplish, or become so when the limb hangs down, and when there is little swelling, and when pain is much greater than is accounted for by any appearance of disease.

"I do not know whether bone-setters make any discrimination among these cases; and I do not advise you to adopt their rough method in any case; for though they may, when successful, prove emphatically the utility of movements for old sprains, yet the same good may be more safely done with gentler means of the same kind. Exercise of the hurt part should be gradually increased, and always followed by long repose; and the frictions and shampoos should be gradually made harder and more rough, and the passive movements gradually extended. Always, the part, if itself cold, should be, by any means, kept warm; and always the patient's constitutional defects should be watched, and, if possible, amended; for very commonly the chief hindrance to the recovery of a sprain is not local, but some general wrong—gout, chronic rheumatism, or struma, or hysteria, as it is called.

"An 'hysterical joint' is, indeed, sometimes a rare opportunity for a victory for a bone-setter. Cold, weak, useless for want of power of will, intensely sensitive, subject to all the seeming caprices of a disorderly spinal cord and too vivid brain,—such a joint as this may be cured by the sheer audacity with which it is pulled about. If nothing in it but its portion of the nervous system is in fault, this may be sometimes cured through influence on the mind. And so not only bone-setters, but the workers with mesmerism, and tractors, and oils, and distant or superficial electricity, can sometimes cure hysterical joints: for the patients love to be cured with a wonder; and the audacious confidence of all these conjurors is truly wonderful.

"From all this you may see that the cases that bone-setters may cure, though more by luck than by wit, are not a few. I think it very probable that those in which they do harm are still more numerous; but the lessons which you may learn from their practice are plain and useful.

"Many more cases of injured joints than are commonly supposed to be thus curable may be successfully treated with rough movements—wrenching, pulling, and twisting. The cases that are thus curable I have endeavoured to point out to you. Be on the watch for them. But remember always that what may be treated violently may be treated more safely and successfully with comparative gentleness; and that, in some cases, you may very advantageously use chloroform or ether. And remember, also, that no degree of violence, not even such movements or exercises as I have advised, can be generally safe in the treatment of injured joints, unless when directed with a skilful discernment of the appropriate cases.

"Learn then to imitate what is good and avoid what is bad in the practice of bone-setters; and, if you would still further observe the rule, *Fas est ab hoste doceri*, which is in no calling wiser than in ours, learn next what you can from the practice of rubbers and plasterers: for these also know many clever tricks; and, if they had but educated

brains to guide their strong and pliant hands, they might be most skilful curers of bad joints and many other hindrances of locomotion."

ART. 105.—*On Blotting-Paper as a Dressing.*

By Prof. W. ROSER, Marburg.

(*Berlin. Klin. Wochenschr.*, iii. 1866 ; *Schmidt's Jahrbücher*, No. 2, 1867.)

Dr. Roser recommends blotting-paper as an excellent application for absorbing pus, and as a better dressing for keeping the wound dry and clean than charpie. This paper, besides being extremely cheap, has the advantages of being easily procured and transported. It is desirable that its use should be recommended in military surgery.

In the clinique at Marburg the blotting-paper was applied for purposes of dressing in two different ways—either by a single broad surface or in separate pieces. In the first method of application, a single sheet of the paper is folded several times, and then placed upon the suppurating wound, and when saturated with pus is exchanged for a fresh sheet. In the second method the whole surface of the wound is covered by a layer of small sheets of blotting-paper placed side by side. This application may be made in the following way:—The paper should be folded up into a small book, and be applied to the wound in such a manner that the fine edges of the leaves are directed towards the fluid that is to be absorbed.

ART. 106.—*On the Injurious Effects of Dressings after Amputations.*

(*Deutsche Klinik* ; and *British and Foreign Medico-Chirurgical Review*.)

Dr. Burow brought this subject before the profession in 1849, with the object of showing that much of the mortality that follows operations is really due to the employment of dressings. He adduced the slight mortality that had attended his own cases in which these were abstained from, as compared with that exhibited by Pauli's statistics. He is now enabled to refer to an additional number of his own cases, making ninety-four altogether, in which the mortality has proved quite trivial. And yet these include numerous cases of amputation of the thigh, leg, arm, &c., many of the patients upon whom the operation was performed being very poor, and treated under disadvantageous sanitary conditions. The stumps in all, however, were left freely exposed to the air, unincumbered with dressings.

As to the execution of the operations, Dr. Burow, when possible, always prefers the tourniquet to manual compression, and performs flap operations whenever the condition of the soft parts admits of this. He disapproves of shaving off the periosteum before dividing the bone,

and is very particular in tying every bleeding vessel, believing it far better to tie some of these superfluously than to have the stump disturbed by subsequent bleeding. The surface of the stump is to be left quite exposed until a serous exudation begins to issue, which is generally the case within half an hour, although in some cases we may have to wait some hours for this. The flaps are then brought together by means of two or three sutures and three or four strips of adhesive plaster, these last sufficing without the sutures in amputation of the arm. After the patient has been placed in bed the stump is only covered with a piece of linen to protect it from the flies, and in the case only of there being much pain ice is resorted to. The very great swelling which takes place in the stump during the second and third days is evidence of the mischievous effects which must result from its confinement by dressings. By Dr. Burow's plan nature is left unimpeded in her process of restoration of collateral circulation of the divided vessels, and emboli with pyæmia are far less likely to occur. If the swelling of the edge of the stump be very great, the threads may be divided at their points of insertion, and left to be discharged, the adhesive plasters being renewed when they become loosened. The discharges are to be gently pressed out from the deeper portions of the wound, and the greatest attention must be paid to cleanliness. How much less reaction follows this simple procedure is seen by the rapidity of the recoveries, patients who had undergone amputation of the thigh having repeatedly left their beds on the eleventh day, the stump being guarded by a small pledget kept on by adhesive plaster. For some years past Dr. Burow has been in the habit of applying to wounds attended with abnormal discharges the acetate of aluminum lotion, which is a cheap and excellent preparation for hospital practice, removing all bad smell. So after amputation, when the discharge is considerable, he resorts to it.

ART. 107.—*On Reducing Dislocations by means of
Caoutchouc.*

(*Gazette des Hôpitaux* ; and *British and Foreign Medico-Chirurgical Review*.)

M. Anger observes that, having for some time employed this substance in the treatment of ankylosis, fractures, spontaneous dislocations, &c., the good results derived from it induced him to extend its application to traumatic dislocations. A man was brought to the clinic with dislocation of the shoulder, which the ordinary procedures failed to reduce. The trunk being secured, extension was applied by means of a tube of caoutchouc, the thickness of the little finger, and sixty centimetres in length. Gently employed at first, the traction was gradually increased until the tube had been wound four times around the bed-post, thus making four traction cords of fifteen centimetres each. The extension was kept up for nearly half an hour, the patient by that time feeling quite exhausted; and the muscles which had resisted the reduction having become relaxed, this was easily accomplished. This mode of making the extension by its gradual and gentle, though efficient, cha-

racter, M. Anger considers as very superior to any of the ordinary procedures. The amount of traction employed must be proportioned to the resistance offered, which varies by reason of strength, sex, and age. In the present case, the subject of which was athletic and the dislocation complicated, four tubes, fifteen centimetres in length, extended to double their length, amply sufficed. The extension should be regulated in ordinary cases so as to obtain complete muscular relaxation in fifteen or twenty minutes.

ART. 108.—*On Sprains in Children.*

(*Bulletin de Thérapeutique* ; and *British and Foreign Medico-Chirurgical Review*.)

M. Guersant recommends that cases of slight sprain should be treated either by binding wadding around the joint, or by methodical kneading or shampooing (*massage*). This last may be resorted to either immediately or some hours after the accident, provided always that there be tumefaction and infiltration of the soft parts, a bandage moistened with a spirit lotion and a little extract of lead being afterwards applied. The hands having been greased with lard, gentle and prolonged pressure should be exerted on the limb from below upwards, the *séances* being repeated more or less often according to the severity of the sprain. In slight cases the patient is enabled to walk after one or two of these; but when the sprain is more severe, the shampooing may have to be repeated for several days. Where there is great swelling and severe pain leeches should be resorted to; or cold may be kept applied by means of wet compresses or continuous irrigation. At the end of a few days a bandage should be lightly applied, to be followed, when the swelling has all subsided, by a starch bandage, which may be retained for a fortnight, month, or even longer.

M. Guersant especially alludes to the sprains produced in children by the mischievous practice of suddenly raising them by a single arm, the limb always being more or less twisted into a state of pronation or supination, with distension or stretching of the joints at the wrist and elbow taking place. It is very rare for fracture or dislocation to be produced in this way, but the appearances may be such as to cause alarm to the friends of the child, and sometimes even to the medical attendants. In ordinary cases there is no appreciable deformity present, but the movements of the parts give great suffering to the child, and on the execution of these a sound is sometimes heard, without seeming to proceed from any precise spot, such as might be produced by the sliding of articular surfaces on each other. Quite suddenly, after the execution of some of these movements, the child ceases to complain; and without our seeming to have done anything to remedy the defect, he becomes enabled to move the arm as before the accident. Sometimes, however, the pain persists, and there may be great tenderness around some one of the articulations. It is not always possible to make a correct diagnosis in these cases; but when neither fracture nor dislocation can be detected, a sprain may be said to have been produced—*i.e.*,

a sliding of the articular surfaces with distension of the ligaments; or, in other words, a tendency to a dislocation which has not been effected. The accident is not always confined to the wrist or elbow, and may implicate more than one joint. The arm should be kept at right angles, either in supination or pronation according to the preference of the patient. The child then complains no more, and in three or four days is cured. If at the end of this time pain persists, a starch bandage may be applied for eight or ten days.

ART. 109.—*The Electrolytic Treatment of Tumours and other Surgical Diseases.*

(*British Medical Journal*, January 12, 1867.)

Dr. J. Althaus, who is well known in the profession for his careful and ably-conducted study of the application of galvanic and electric currents to the treatment of disease, has lately been carrying out some experiments with a view to obtaining absorption of tumours by electrolysis, which are novel and ingenious; while, according to the statement of results obtained which we append from Dr. Althaus' pen, they promise to effect a very important improvement, and to add a valuable agent to the means already at our command. He writes:—

"I was first led to adopt the electrolytic treatment in consequence of a series of microscopical observations I made some time ago, on the changes which animal structures undergo under the influence of the chemical action of the continuous galvanic current. As far as I am aware, not a single observation has yet been made by any other observer in this department of microscopical research; and, knowing the powerful electrolytic effects of the continuous current, I expected to arrive at some very curious results in undertaking these investigations.

"I have studied the action of the current upon the intimate structure of the skin and cellular tissue, muscular fibres and tendons, cartilages and bones, liver and pancreas, spleen and thyroid body, kidneys and suprarenal capsules, testicles, breasts, and ovaries. The general result has been that no animal tissue whatsoever can withstand the disintegrating effect of the negative pole, and that the force and rapidity with which this disintegration is brought about are directly proportional to the electro-motor power which is employed, and to the softness and vascularity of the structures acted upon. Thus ten cells of a battery have a more thorough and rapid effect than five, fifteen more than ten, and so on; while, as regards the tissues, those containing most water, such as the muscles, the cellular tissue, the spleen, &c., are more rapidly disintegrated than those which contain less fluid. Bones and teeth withstand the action of the current for a considerable time.

"A most curious and novel circumstance forced itself early on my attention; and this was, that the electrolytic action of the negative pole was mainly composed of two different elements; viz., of the mechanical action of the nascent hydrogen, which was, under the microscope, seen to rise in innumerable bubbles, as soon as the circuit was closed, and to

force itself, as it were, between the structural elements of the tissues, driving their fibres mechanically asunder; and secondly, of the chemical action of the free alkali (soda and potassa), which, together with the hydrogen, is developed at the negative pole of the galvanic battery.

"I have been careful in these experiments to exclude the calorific effects of the galvanic current, which is easily done by employing a battery composed of a number of cells charged merely with water and a solution of sulphate of copper, without any acid, the metals used being of medium size. The current thus produced had no effect whatever on the bulb of a Negretti and Zambra's thermometer, on which one-tenth of a degree of Fahrenheit can be easily read off. The effects of such a current are therefore simply electrolytic, and have nothing whatever to do with the galvanic cautery.

"Seeing that such powerful effects were produced at the negative pole of the battery on structures taken out of the body, I was naturally anxious to inquire what would be the effects of the same in the living body. Having procured some *corpora vivia*, viz., frogs and rabbits, I found that the effects were, to a certain extent, identical with those obtained on dead structures; only with this difference, that, in the warm-blooded animal, the action was more rapid and energetic, which is explained by the fact that water at a temperature of 98° conducts electricity better than water at 60°. While, however, the immediate effects of the current were nearly the same in dead and living structures, considerable changes in the nutrition of the parts were observed as a remote sequela of such operations in living animals.

"It was then observed that a needle connected with the negative pole of a galvanic battery, as described above, could be inserted into, and removed from, the body without causing any loss of blood; that the current used did not appear to give any pain to the animal beyond what was due to the introduction of the needle through the skin; and that the part operated upon shrank sensibly after the operation, but that there was neither inflammation, suppuration, nor sloughing. If the negative pole was made to act upon blood-vessels, it was found that they were slowly and gradually obliterated, and filled with firm deposits of fibrine; they were thus changed into solid strings wherever the current had been made to act.

"It appeared fair to conclude, from these observations, that the current could be applied safely and successfully to such parts of the body where shrinking and disintegration of tissue, and obliteration of blood-vessels, might be required for surgical purposes. The first case in which I used it in this manner was one of *nævus* of the eyelid, in a highly sensitive lady, who was under the care of Mr. White Cooper, in July last. Two operations were performed on this patient, the first on July 23rd, on one half of the tumour, and the second on July 26th, on the other half. Not a drop of blood was lost during or after these operations; there was very little pain, if any; no subsequent evil effects took place; and the medical attendant of the lady (who went to the country after the operation) wrote to me on October 13th, in reply to an inquiry on my part, that soon after the operation the *nævus* had disappeared, and the evil been completely obliterated.

"Since then I have operated upon cases of brouchocele, molluscum,

a papillary tumour in the armpit, glandular swellings, and hydatid cysts of the muscles, (the latter in a horse, which may now be seen quite recovered at Messrs. Mavor's veterinary establishment in Park-street, Grosvenor-square), and piles. The method appears to be applicable also in aneurism, varicocele, and varicose veins generally, hydrocele, hydatid tumours of the liver, enlarged bursæ, polypus, cancer, warts, boils, carbuncles, and strictures of the œsophagus, rectum, and urethra. The more vascular and moist the tumour, the greater will be the effect; and cases of nævus, aneurism, &c., seem, therefore, to be best suited for the electrolytic treatment. The following are some of the advantages this method appears to have over other surgical proceedings: that it causes no bleeding during or after the operation; that there is no shock to the system; that it causes very little pain, so that neither chloroform nor ether spray is necessary; that no inflammation, suppuration, or other bad symptoms follow; and that the patients may, during the treatment, pursue their usual avocations, being not obliged to stay in bed, or even indoors. If the electrolytic treatment is not as quick as the knife, it is, on the other hand, exempt from the dangers which may follow all cutting operations; and it will, on this account, be probably preferred in many cases where less safe proceedings have hitherto been employed, and where the delay of a few days or weeks appears to be of little consequence. I believe that in cancer it will be chiefly valuable, not merely by removing the present tumours, but also by so modifying the nutrition of the parts concerned, that no relapse is likely to take place there; and, if combined with an energetic constitutional treatment, it may thus indirectly help towards the eradication of the cancerous diathesis."

ART. 110.—*Weakness of Bones.*

By HOLMES COOTE, F.R.C.S., Surgeon to St. Bartholomew's Hospital.

(*On Joint Diseases; their Pathology, Diagnosis, and Treatment; including the Nature and Treatment of Deformities, and Curvatures of the Spine.*)

In speaking of this very common affection among all classes, and especially the poor, Mr. Coote says, "The affection is in no way allied to rickets; the bones are simply weak, and they bend in that part which is weakest. Combined with this weakness of the bones there is often found a corresponding weakness of the ligaments. Thus, a young child may have knock-knees, and anterior and outward curvature of the tibiæ. On the other hand, the tibiæ may curve outwards, producing bow-legs. Or, again, there may be knock-knee on one side and bow-leg on the other. If the condition of knock-knee is severe, and has been of long continuance, it produces a sinking of the arch of the foot, technically termed *talipes valgus*; and under all these circumstances progression is painful, uncertain, and difficult. If the curvature be allowed to go on unchecked, it produces very serious deformity, which is irremediable in the adult without the constant employment of instruments.

"I saw a young lady, aged eighteen, in June, 1862, whose legs had

been allowed during infancy to become 'bowed.' The deformity was not considerable, but it gave rise to much annoyance. In the first place, her gait was not so firm and steady as it should have been. Secondly, she wore out all her shoes on the outside edge. Thirdly, the legs being not quite equally bowed, their length did not completely correspond, and a compensating curvature of the spine was the result. The parents thought that the deformity was on the increase. Now, the bones were too firm at the age of eighteen readily to yield to the pressure of a splint; the treatment should have been adopted at a much earlier age. I represented that as these changes in figure were but slight, no mechanical support was immediately indicated, but that some such measure would become imperatively necessary should the curvature increase. Long walks or constant standing was forbidden; but she was directed to ride on horseback, and pursue such habits as were calculated to improve the general health.

"In cases of confirmed knock-knee, the gait is equally uncertain and ungainly.

"In May, 1866, a respectable woman brought to me a child about three and a half years of age, who was suffering from knock-knee and curvature of the tibiæ, increasing in degree until the little girl could scarcely stand. She had been to a large hospital, and was there told that 'splints were of no use, the child must remain as it was.' It is scarcely necessary to add that long outside splints were applied, and that complete recovery ensued after a period of eight months.

"Fear on the part of the parents that the bandages and pressure will make the limbs shrink, is without foundation. Fatty degeneration of a limb, or part of a limb, follows the loss of power along the course of nerves, but is not associated with simple pressure."

ART. 111.—*Treatment of Rickets.*

By HOLMES COOTE, F.R.C.S., Surgeon to St. Bartholomew's Hospital.

(On Joint-Diseases.)

Mr. Holmes Coote says, in his valuable work, that during the existence of rickets the surgeon has to remove a state of general febrile excitement, which interferes with and nearly arrests healthy nutrition. Hence we administer small doses of antimonials, hyd. c. creta, magnes., and rhubarb, to act gently on the bowels; or rhubarb and soda, castor-oil, senna. The child should be weaned, and supplied with good cow's milk. In the second stage, sea-bathing, tonics, quinine, gentian, are the measures usually found most serviceable; oxide of zinc, carbonate of iron, cod-liver oil, have also been recommended. In some constitutions the alkalies seem preferred; carbonate of soda when the bowels are relaxed; carbonate of ammonia when the heart's action requires it. The clothing should be warm, and protect both knees and elbows. The use of splints and apparatus is a subject of paramount importance, the ob-

ject being to *prevent* alteration in the shape of the bones. If the child pass through this period of infantile suffering without great deformity, the recovery is complete. If the bones bend, the deformity is permanent. Rest in the horizontal position is also very important during some part of the day.

ART. 112.—*Clinical Studies of Cancer.*

By CHARLES H. MOORE, F.R.C.S., Surgeon to the Middlesex
and to St. Luke's Hospitals.

(*British Medical Journal*, February 9th, 1867.)

Mr. Moore makes the following remarks upon the treatment of primary tumours:—

“There is one question, before all others, relating to the treatment of primary cancers, which presses for attention, and which I therefore allude to in the present communication: it is the injection of such tumours with acetic acid. It is not yet possible to foresee the extension of which that method of treating cancer is capable. I have myself much hope from the employment of it; but I am already satisfied by its effects in secondary tumours, that it is not yet made applicable to the primary. From the first promulgation of this treatment by Dr. Broadbent, I have never used it or advised it in any case for which the ordinary operation was adapted, as it did not appear right to essay a remedy so little tried, and the adequacy of which for relieving all conditions of the disease was uncertain, in any person entitled to treatment known to be effectual. Already I have come to know that both disappointment and damage have resulted from an experimental use of the acetic acid in cases of primary cancer of the breast, which were fitted for removal by the knife. It is the more incumbent on me to say this, as by announcing the destruction of cancerous matter in the interior of a lymphatic gland with this acid, and the absolute dispersion of small recurrent subcutaneous cancerous tumours by the same means, I may unwittingly have encouraged others to what I cannot but think a misapplication of the remedy. So ready a method of disposing of cancer is not yet won. Its unseen diffusion beyond the apparent limits of a tumour is too certain a fact to justify confidence in injections for the removal of it. Neither is it to be yet expected of a remedy so slow in its action, and the management of which is far from perfected, that it should all at once supersede the more sure operation. The condition of primary tumours appears to me to make them particularly unfit for this treatment, for whilst they are growing, and may be large, the acid can only be thrown into them in small quantities, and at intervals. If used in a large quantity, it produces suppuration or sloughing, a disastrous action of a remedy in a primary cancer; and in any quantity it produces swelling, with consequent uncertainty as to the area over which the effect of the acid has been secured, and delay in pursuing the treatment. Meanwhile the tumours continue to grow in the parts concealed

by the swelling. I cannot think this to be right treatment of a primary cancer.

"Such objections may appear to relate no less to a secondary, recurrent, or advanced, than to a primary tumour; but the circumstances are in fact very different. The treatment of the later disease is avowedly undertaken with less prospect of advantage than that of the primary. In those advanced cases the acid can achieve the reduction always, and sometimes the removal of the morbid mass; and it is only in such cases, where established methods of treatment are unsatisfactory, that those which make greater promise ought to be proved."

ART. 113.—*Acetic Acid in Epithelial Cancer.*

(*Gazette des Hôpitaux*; and *Edinburgh Medical Journal*, May, 1867.)

In a leading article of the *Gazette des Hôpitaux*, after briefly noticing the purely negative results obtained by the injection of acetic acid into true cancers, a notice is given of a series of cases reported by Dr. Dieu, of the Hôtel des Invalides, in which he had used acetic acid with the happiest results on those tumours and ulcers of the skin which are classed under the heads of "cancroïde," "noli-me-tangere," and "cutaneous epithelioma." In one of eleven years' standing, the ulceration of the lower eyelid and angle of the eye was as large as a franc-piece; yet after ten external applications of the concentrated acid during one month only, cicatrization was complete. Another in an old soldier (æt. 77), a tumour of twelve years' standing, as large as a filbert, with an indurated base, was completely removed after two injections and four applications of the concentrated acid. Three other cases were similarly treated with similar happy results.

ART. 114.—*On a New Styptic and Adhesive Fluid—Styptic Colloid.*

By BENJAMIN W. RICHARDSON, M.A., M.D., F.R.C.P., Senior Physician to the Royal Infirmary for Diseases of the Chest.

(*British Medical Journal*, April 13, 1867.)

In the first of a series of lectures on Experimental and Practical Medicine, Dr. Richardson called attention to a compound fluid for instant and ready use in the dressing of wounded surfaces: a compound which is at one and the same time a styptic, an antiseptic, and a complete means of excluding wounded, abraded, or ulcerated parts of the body from the influence of the external air. The fluid, which, for the sake of brevity, he called "Styptic Colloid," is very simple in its construction; and although the process of making it is rather prolonged, it is sufficiently easy.

The fluid consists of ether and alcohol, the ether being in excess, saturated with tannin and gun-cotton. The fluids used as solvents must both be absolute; and the ether should have a low specific gravity, and a boiling-point not higher than 92° - 94° . The fluid, diluted in equal parts with ether, may be used in the form of spray; but the most common way of applying it is with a brush, precisely as gum is applied.

When the solution is thus brought into contact with an open surface of the body, the resultant phenomena are these. The heat of the body gradually volatilizes the ether and alcohol; and the tannin and the cotton are thus left stranded (as the ether leaves them) on the wounded surface, in close combination. In proportion as the ether escapes, the blood or the secretion of the open surface permeates the tannin and the cotton. The tannin acts directly on the albumen, coagulating it, and transforming it into a kind of membrane almost like leather. The cotton meanwhile gives consistency to the mass, unites the whole, and promotes adhesion. As the tannin is in excess, any new exudative matter or blood is for some hours taken up by it, thus rendering the annealing process the more complete.

Dr. Richardson next proceeded to demonstrate the effects of the solution on blood, albumen, serum, liquor sanguinis, and purulent fluid. He showed that it produced solidification of all these fluids, adhesion of their parts, and deodorization when they were offensive.

By this dressing, then, the air is excluded from every possible point in a wound, in every possible direction; and that not by a mere septum, but by a direct combination of the animal fluids with the remedy.

The next part of the lecture bore on the modes of application. In the case of wounds of a recent kind, after the edges had been brought together by suture, the solution was freely applied with a brush; and a thin layer of cotton-wool, saturated in the solution, was also laid in the line of the wound. To quicken hardening, the solution should be gently breathed upon as applied. In cases of open wounds, as open ulcer, the solution should be applied directly over the open surface; and, whenever there was reappearance of purulent or other discharge, again the solution should be applied. In compound fracture, the solution might even be poured gently into the wounded cavities. In no case need the dressing be removed, unless it were raised by discharge, unless there were factor from the wound, or unless there were some general symptoms indicating purulent formation.

After giving these general instructions, Dr. Richardson proceeded to the narration of cases in which he had applied the fluid in practice; viz., cases of profuse hæmorrhage; cases of common ulceration; cases of syphilitic ulceration; cases of open cancer; and cases of recent wound. In the latter class of case he had treated with entire success an amputation of the foot by Chopart's plan, but in which the operator, Mr. Adams, owing to an anchylosis of the cuboid and os calcis, had been obliged to use the saw freely. In this case the wound healed throughout in three days; and although, at the first dressing, a portion of the newly-healed surface was torn open for about a quarter of an inch, that reunited, and, on the sixteenth day, the patient was able to return to the country quite well, having never had one unfavourable symptom.

The styptic fluid, in most cases, acts well by itself; but it also forms a base for many other useful medicinal agents.

With *creasote* and *carbolic acid*, it forms a very powerful antiseptic solution; but this solution is rather irritating.

With pure *quina*, it forms a powerful antiseptic; but the compound is not so adhesive as the base.

With *iodine*, it forms an admirable solution, especially for cases of slow, fetid, indolent ulcer, strumous in character. It also combines with *iodide of cadmium*.

With *bichloride of mercury*, it unites well, and the resultant compound is most useful in large, slow, syphilitic ulcers. The mercury salt should be added in the proportion of one-twentieth of a grain to the drachm.

With *morphia*, pure, it also combines, and forms a soothing dressing in cases of irritable ulcer.

With *cantharidine*, it combines readily, the solution producing a kind of dry blister.

ART. 115.—*On the Use of Spider's Web as a Styptic.*

(*Pharmaceutical Journal*, April; and *Amer. Journ. Pharm.*)

Mr. Robertson states, in the "Dental Cosmos," that—"On one or two former occasions I have written something on the use of the spider's web as a styptic in cases of excessive hæmorrhage after extracting a tooth. I now wish to add the result of my experience in another case. I do it with the hope and belief that it may be an essential service to some of my professional brethren, and perhaps to some of their patients. It may be thus serviceable on two accounts. First, it can always be obtained, and everywhere, and sometimes when other more popular remedies cannot so readily be obtained; and second, because in my hands it has proved efficient where everything else has failed.

"About a year ago a young man, eighteen years of age, came to my office to have a lower molar tooth extracted. I examined the tooth, took my forceps, and extracted. The operation required rather less force than usual. The tooth came out entire, and clean, and with no laceration of surrounding parts, except the necessary severing of the periosteum. But from the first, blood flowed more freely than usual. I directed my patient to rinse his mouth with cold water, which he did considerably longer than the usual time of the flow of blood in such cases, but with no diminution of its flow. I then applied tannin on pledgets of moistened cotton, filling the socket with them. After repeating this application two or three times, the bleeding ceased, and he left. In about three hours after he returned, bleeding as profusely as ever. I then filled the socket from whence the tooth came with cotton saturated with perchloride of iron. This I repeated several times, with a delay of a few minutes between the applications, without any apparent effect. I next applied the persulphate of iron, full strength, in the same manner, and with no better result. Finally, I procured some spider's web, with which I filled the socket, as I had before done with the cotton, when—I need not say that I was gratified

to see—the bleeding stopped almost immediately, and there was no more recurrence of it.”

ART. 116.—*Acupressure.*

By WILLIAM PIRRIE, C.M., M.D., &c., and WILLIAM KEITH,
M.R.C.S., M.D., &c.

(*Acupressure: an excellent Method of Arresting Surgical Hæmorrhage and of Accelerating the Healing of Wounds.*)

The following are the seven different modes of applying acupressure detailed in this work:—

The first method consists in introducing a long needle or glass-headed pin, with bayonet point, through the flap from its cutaneous surface close to the opening of the bleeding vessel; carrying its point across the track of the artery, and then pushing its point into the tissues of the flap, it is made again to emerge upon the cutaneous aspect of the flap. It is stated that in many conditions this is an admirable method of suppressing hæmorrhage, especially of the spermatic arteries in the cases of excision of the testicle, radial and ulnar arteries in cases of hæmorrhage from deep wounds of the hand, &c.

The second method.—Here a short needle, threaded with iron wire, to admit of its being withdrawn, is introduced upon the cut surface of the flap. First taking up the tissues on one side of its course, it is made to emerge close to the channel of the bleeding vessel, and bridging over its track, is pushed onwards more or less deeply among the tissues beyond, so as to compress its tube and stanch the bleeding by the strain of the tissues among which either extremity of the needle has been buried. In many minor operations Dr. Pirrie has practised this method, and always with satisfactory results.

The third method is effected by transfixing the tissues lying around an arterial tube, by means of a needle introduced from the cut surface. A loop of wire is now passed over the exposed point of the needle, and the two ends of the wire together tightened round its shank, till the tissues containing the vessel, and now included between the needle and the wire, are sufficiently compressed to check all flow of blood from the open mouth.

The fourth method is precisely the same as the third, except that a steel pin with a glass head is substituted for the needle threaded with twisted wire.

The fifth method was originally employed by Sir J. Y. Simpson, in a case operated on by Dr. P. D. Handyside, but independently introduced by Dr. Knowles, a former house-surgeon in the Aberdeen Hospital (and hence called, in Aberdeen, the Aberdeen method). This is effected by introducing a needle or pin through a modicum of tissues on one side of the artery to be compressed, and then having rotated its shank or head a quarter or half circle horizontally with the surface of the wound, its point is pushed onwards among the tissues, corresponding to the new axis of the needle, so as to maintain the occlusion of the artery by the degree of twisting of texture thus produced.

The sixth method, originated by Dr. Keith, consists in passing a pin through the tissues beside the open mouth of an artery; the duplication of iron wire is then looped over the needle-point; the ends of the wire, instead of being bent together round the shank, are separated from each other, and made to include the bleeding vessel and the textures in which it lies, so that when the ends of the wire are crossed behind the needle-shank and tightened, the included parts are compressed on both sides of the needle.

The seventh method consists in employing a pin to compress the bleeding artery against an osseous surface in contact or in close proximity to which it lies.

Of all methods of acupressure, Dr. Pirrie says the third and the fourth are, no doubt, the most secure. The principle on which the hæmorrhage is suppressed in both methods is precisely the same. For securing a vessel on a perpendicular wound, the sixth will sometimes be found a convenient method in circumstances where the performance of the third or fourth would be attended with difficulty. It has occurred to Dr. Keith to suggest that in persistent hæmorrhage from any vein on the face of a stump, arrest may be safely accomplished by having recourse to either the first method or the fifth, as locality may indicate. A few hours' pressure would insure permanent occlusion, and then, without disturbance, the pin be withdrawn.

ART. 117.—*Scalds and Burns.*

(*Medical Times and Gazette*, February 16, 1867.)

The treatment invariably adopted for these, at St. Thomas's Hospital, when admitted directly after the injury, is to whitewash the parts with a paste of whiting and vinegar. This is covered with a layer of thin linen, and the whole enveloped in cotton-wool. The patients themselves acknowledge the immediate relief which this affords, and the parts usually do well. The crust which forms is left on until it crumbles off, when a fresh layer is put on; but when a granulating sore occurs, the ordinary forms of dressing are substituted.

ART. 118.—*The Use of Ergotine in Purulent Infection.*

By M. LABAT, of Bordeaux.

(*Gazette Hebdomadaire*, No. 2, 1867.)

M. Labat read a paper before the Imperial Society of Surgery, entitled "Purulent Absorption, and the means to prevent it." He believes that purulent absorption is produced by the introduction of pus into the blood, which generally occurs about the eighth day after the operation, when the engorgement of the tissue with plastic products

commences to diminish, and the passage of purulent matter into the open vessels is rendered easy.

Starting from the fact that the gangrene caused by the use of ergot of rye presents itself in a dry form, which he believes to be owing more to the increased plasticity produced by the drug than to a feeble state of the arteries, M. Labat thinks that this property may be directed with success against purulent absorption.

Instead of using the ergot, which affects the stomach, M. Labat employs ergotine, which possesses all the essential properties. He administered it in 3ss doses to fourteen patients who had undergone surgical operation. In all these cases the results were favourable, and the purulent discharge was less abundant than that in patients who had not been treated by the ergotine, and the swelling of the tissues was not so great. As attacks of purulent infection are frequent in the Hôpital St. André, M. Labat thinks that the success attending these fourteen cases may be attributed to the medicinal treatment employed.

ART. 119.—*Hospital Gangrene.*

(*Medical Times and Gazette*, March 30, 1867.)

For hospital gangrene, or for sores when they take on an unhealthy action, Mr. J. Lane is in the habit of ordering a lotion of dilute nitric acid, and it is wonderful how speedily with it the aspect of the wound alters for the better. We noticed this more especially in two cases of railway injuries implicating the upper extremity—in one the arm had to be removed at the shoulder-joint, in the other at the elbow-joint (an operation, by-the-bye, very seldom performed, but which gives admirable results). Mr. J. Lane being the operator. Soon afterwards the wounds assumed a rather unhealthy appearance, but the nitric acid lotion quickly set them to rights.

ART. 120.—*The Rotatory Fillet: its Practical Application.*

By G. R. SHERATON, L.R.C.P.E., M.R.C.S.

(*The Medical Times and Gazette*, January 19, 1867.)

The following are a few cases in which the steel rotatory fillet (a) was employed to facilitate delivery in cases of difficult parturition, arising from the several causes in which the use of forceps, vectis, etc., was indicated.

CASE 1.—S. G., aged twenty-six years, a short and stout person, dyspeptic and hypochondriacal. At the seventh month of utero-gestation she was attacked with epileptic convulsions, which recurred at short intervals over a space of two days, and then gradually subsided. The remedies employed were—aperients, small and repeated doses of morphia, cold affusion to the head, and a blister to the nape of the neck. She had frequent bearing-down pains betwixt the convulsions, but on examination there were no

other indications of labour. The "pains" subsided, and she soon was able to perform her household duties. Her previous history is particularly interesting from the circumstance that in her two former confinements (both of which I attended) the progress of the labour was impeded by contraction of the outlet, occasioned by the approximation of the tubera ischii, rendering instrumental interference necessary. The forceps could not be applied laterally, and with great difficulty I succeeded in applying them posteriorly, and in slipping them to either side, by pushing up the head from the tuberosities of the ischia to admit them. I had great difficulty in extracting, the forceps having slipped two or three times, from the great amount of force required; the perineum was slightly ruptured on the first occasion, and a stillborn child was born on both—evidently from the pressure of the points of the instruments. Pelvic abscess followed, and the convalescence was protracted. Craniotomy might have been employed with greater advantage, but there were indications of vitality of the fetus.

On March 15th I was again sent for. She had been in labour twenty hours. The liquor amnii had escaped; the pains were frequent and straining. On examination, I found the head had descended into the cavity of the pelvis, and was occupying the normal position. There was no rigidity of the soft parts. I waited about six hours, during which time the pains became less frequent and weaker, the pulse rapid and feeble, the vagina hot and dry, and the head had not descended to any perceptible extent, but seemed closely impacted and immovable betwixt the rami ischii, as on the former occasions. I was unable to detect the placental murmur, nor yet the sound of the fetal heart on the application of the stethoscope, and as the natural efforts seemed ineffectual, and the exhaustion infinitely greater, it was evident that the time for instrumental interference had arrived. I therefore sent for the craniotomy instruments, and in the meantime proceeded to test the efficacy of the fillet, as it afforded an excellent opportunity for so doing. I had not the slightest difficulty of introduction, no force being required to pass it over the convexity of the head. I then proceeded to rotate the blades, and had no difficulty in doing so till the blades came in contact with that portion of the head which was closely impacted between the rami ischii, but by pushing up the head sufficient space was obtained to admit the blades of the instrument, and to pass it round the head to the desired extent. The instrument which was used on this occasion was made hurriedly, and had a long diameter of only $4\frac{3}{4}$ inches, and which I found to be too short, and I should have experienced great difficulty had not the flexibility of the blades (No. 32 wire gauge in thickness) enabled me to bring it over the long or occipito-mental diameter of the head. There were short straining pains excited during the application of the instrument. I then proceeded to apply tractile force, at first gently, and, finding that the instrument did not slip, I gradually increased the amount of traction till my whole strength was exerted upon it, and this was kept up, with short intervals of rest, till delivery was effected. I found that whilst traction was being made I was enabled to change the position of the head, and also that it exerted a certain amount of lateral compressing force upon the head. The child was stillborn, as expected. No marks, abrasions, &c., were to be observed upon it. The mother was not aware that instrumental aid had been made use of. She made a good recovery, only one visit being afterwards needed, and she was able to perform a portion of her household duties within a week.

CASE 2.—D. D., aged thirty-one years, a stout and robust woman. I was called in on April 10, and found her in labour of her sixth child. The liquor amnii had escaped the previous day without pains, but they com-

menced shortly afterwards and continued to increase, and at the time of my attendance were strong bearing-down pains, and the intervals extremely short. On making a vaginal examination I found a hand at the vulva (the left), the os dilatable, and the maternal passages generally in a state favourable for delivery. As nothing was to be expected from the natural efforts, I at once proceeded to deliver by turning, which was somewhat difficult to accomplish, as the uterine contractions were extremely active; but I at length succeeded in bringing down the feet and effecting delivery of the body of the child, and then I experienced considerable difficulty and was unsuccessful in my efforts to extract the head by ordinary measures. The pulsation of the cord was scarcely perceptible, and further delay would have insured the child's destruction. I introduced the blades of the fillet and passed them round the head without difficulty, and with a moderate amount of traction I accomplished the delivery without further difficulty. The secundines followed in due course, and she made a good recovery. She was not aware that instrumental aid was employed to complete the delivery.

CASE 3.—D., aged thirty-seven, in labour of her sixth child. On being called I found her in bed, the pains weak and at long intervals; she vomited incessantly, the pulse rapid and weak, and she was evidently much prostrated. She had slight pains for the last twelve hours, which had been much stronger and more frequent previous to my arrival. She had not enjoyed good health during her pregnancy, having suffered much from pain, fainting, loss of appetite, &c. On examination I found that the head had descended into the pelvis and occupied the normal position, great relaxation of the soft parts, and the head seemed of small size. I waited a considerable time, and, the vomiting having somewhat abated, I ventured to give a small quantity of pulv. ergot, and to place a bandage round her. The ergot was at once rejected, and also brandy, tea, &c. The vomiting continuing, nothing was therefore to be expected from the further administration of the ergot. The condition of the passages being most favourable for delivery, and the safety of the mother and child demanding immediate interference, I considered it a suitable case for the employment of the fillet. I introduced it with the blades a little apart, forming a sort of fenestrum; and gradually rotating the blades as I placed it over the chin, and the instrument was at once applied. A very slight amount of tractile force was sufficient to effect the delivery. In this case the application and delivery did not occupy more than one minute, and the mother was not aware that her speedy delivery was due to instrumental aid. Compression over the abdomen excited a slight pain, and the secundines separated with slight traction at the cord. There were no marks or bruises upon the child. She made a speedy recovery, being able to leave her room on the fifth day.

ART. 121.—*On Paraffo-Stearine: a Substitute for Starch, Plaster of Paris, and such-like Substances, in Bandages and Splints.*

By JAMES STARTIN, Esq., F.R.C.S., Senior Surgeon to the Hospital for Diseases of the Skin, &c.

(*British Medical Journal*, March 30, 1867.)

For a few months past I have been using what appears to me to be an inexpensive, useful, cleanly, elegant, and efficient desideratum, in

the treatment of varicose veins and diseased joints, instead of strapping, and also in all maladies or injuries where rest, equable support, and solidity of the parts affected, are required. This consists in immersing "Domett flannel," "Welsh flannel gauze," the woven elastic or other bandage, or felt, either the common carpet felt or that prepared for surgical purposes, in a combination of equal parts of rock paraffine and stearine, as used for candles, which may be coloured to a flesh-tint with alkanet root, and liquified to a little beyond the melting-point (160° Fahr.), so as to render the composition of a temperature that may be readily manipulated without injury to the hand or part on which it is applied. Rollers or felt, the latter cut into the shape of the splint required, are to be saturated with the above melted composition, and applied whilst warm and flexible to the limb or joint; when, if needed, further strength and solidity may be given by varnishing a portion of the melted composition over the splint or bandage with a painter's brush, and afterwards smoothing the whole with the palm of the hand, until it assumes the surface of ivory, or the well-known appearance of a paraffine or stearine candle. A fold of linen, dipped in cold water, is finally to be passed round the bandage or splint, which immediately solidifies the melted paraffo-stearine, when the application is complete; and the wet linen may be continued as an evaporating lotion, if desired. Into this bandage or splint, openings may be readily cut by means of scissors curved on their cutting edge into the segment of a circle, or bent to an obtuse angle; the melted composition being afterwards applied over the cut edges of the opening, so as to form a complete solid case, allowing the escape, through such openings, of discharges, and the application of dressings. It will be perceived that, by dividing the paraffo-stearine bandage, and removing, say half an inch, or separating it into halves, and trimming the edges in the usual manner, splints will be formed having the exact configuration of the part to which they are to be applied, and that these splints can be lined with flannel, wash-leather, &c., and strengthened with the melted paraffo-stearine to any extent required. Mr. Ewen, Jermyn-street, the well-known plaster and bandage manufacturer, has undertaken to prepare and furnish these appliances, accompanied by directions for their employment.* Each bandage will be found soaked in paraffo-stearine, with a portion of the prepared composition in its containing canister, for varnishing the bandage or splint, if needed, *after it has been tightly and evenly rolled, or applied to the affected part.* The felt is supplied in sheets of convenient size, saturated with the composition, from which the splints can be cut, and after they have been moulded to the part requiring them as described.

All that is needed before employing these appliances, as prepared ready for use, is to put the canister containing the bandage and a portion of the paraffo-stearine for varnishing into boiling water until liquified; and the piece of prepared felt may be held before a fire or immersed in water a little below the boiling point, until it acquires the requisite flexibility, when it can be fixed where required by the ordinary pro-

* They will also be prepared by Messrs. Savory and Moore of New Bond-street.

cedure, varnished and finished by the aid of the canister of paraffo-stearine and brush sold with it, and finally solidified by surrounding it with linen dipped in cold water. Or, the whole of the appliances described can be readily extemporized by the aid of a pound or two of paraffine or stearine candles, a jug or jar in a saucepan of boiling water for melting the same, a rolled flannel, Donett, or other bandage, and a shaving-brush; or, should a splint and not a bandage be preferred, a strip of felt carpet, cut into the required shape, and also rolled together, so as to be immersed in the melted candle composition in the jar.

I have found that the best mode of procuring the stearine, or rock paraffin, when a moderate quantity only is required, is to purchase the candles (so called) from any respectable tradesman or the candle-companies, asking for the stearine candles used for India, the melting point of which is about 157° Fahr. (the cost is one shilling a pound); or the rock paraffine, which melt at 135° , and cost the same price, at Messrs. Neighbour and Sons, Regent-street. I have observed that a mixture of the two sorts of candles is the most suitable; but either one of them can, of course, be used separately. If this be done, however, the paraffine should be employed in winter and the stearine in summer; and I may observe that all the bandages and splints may, by remelting, be used a second or third time, thus rendering them amongst the most economical of applications; and it may also be well to mention that, when the removal of a bandage is required, it may be at once softened and taken off by brushing it over with any of the benzines used for cleaning gloves; that of Farey of Regent-street being the most suitable.* Each variety of benzine mentioned, according to my experience of several years, will be found a most useful surgical accessory, not only to clean the skin and hair from all their natural or acquired oily or sebaceous secretions, but also to remove grease, plasters, &c., from the cutaneous surface without causing local irritation; and, for these purposes, I have much pleasure in introducing it as a therapeutic agent to the profession, which has the property (as I often say to my patients) of cleansing a living skin as effectually as a dead one; and for such purposes, I doubt not, it will come into general requisition, perhaps even as extensively as glycerine, which I introduced twenty-four years ago, and which I have lived to find the subject of memoirs and special treatises advocating its employment for the purposes for which I originally recommended it, without even the mention of my name.

ART. 122.—*A Dressing for Wounds.*

(*British Medical Journal*, March 23, 1867.)

French surgeons, while gradually accepting the abolition of "the classic dressing of cerate and dry charpie" which has so long been exiled from our wards, are still loth to accept the simple water-dressing

* Purified benzine can also be obtained of Messrs. Taylor of Vere-street, Savory and Moore of New Bond-street, Waugh of Regent-street, &c.

which for so many years has rendered such immense services to the English school of surgery. Alcohol and glycerine have been the two latest introductions. M. Foucher combines the two (*Journal de Médecine Pratique*), and adds chlorate of potash—alcohol, 400 parts; glycerine, 625 parts; chlorate of potash, 40 parts. This gives a transparent liquid, which does not stain the dressings. It is less painful than alcohol, and no doubt useful for flaccid or unhealthy wounds.

ART. 123.—*The Ether-Spray Process as an Aid to Diagnosis.*

By EDWIN HAWARD, M.D., Physician to the Westminster General Dispensary.

(*Medical Times and Gazette*, January 12, 1867.)

A short time since a married lady, aged forty, called on Dr. Haward for advice for an obscure affection of the right hand and forearm, which, she stated, had lasted several weeks, and for which she had sought relief without obtaining much benefit. The symptoms had been considered to be constitutional, and were treated accordingly. The symptoms presented were those of a neuralgic affection of the ulnar nerve, accompanied by a tingling of the hand and forearm, with contraction of the fingers supplied by that nerve, and a tenderness more or less over the region. On following up more closely the course of the ulnar nerve above the elbow-joint, and where it rests on the inner head of the triceps muscle, and before it reaches the groove between the internal condyle of the humerus and the olecranon, a peculiar indefinite swelling was at once perceptible, which when pressed produced pain, accompanied by a numbness of the hand and great tingling of the fingers. Dr. Haward subsequently ascertained that eleven years since the patient had experienced a severe attack of rheumatism, which affected more particularly the same elbow; he therefore inferred that the symptoms were due to direct local pressure upon the nerve, and were a sequela of the rheumatic disease.

The diagnosis of this case being somewhat obscure, and Dr. Haward's opinion being opposed to that of her late medical adviser, he suggested that another consultation should be held, when Dr. Richardson kindly gave his view of the case. He suggested the use of the ether-spray for the purpose of alleviating the paroxysms of pain, which were continually recurring.

The effect of the spray was instantaneous relief of pain, whilst the contraction of the fingers completely passed away. The patient, who had not slept for many nights in succession, now obtained refreshing sleep, and the following day she came to Dr. Haward, a distance of three miles, looking quite another person. Thus far as to the curative powers of the remedy in alleviating the local pain, as a means of diagnosis in detecting the nature of this somewhat obscure affection. Dr. Haward states that "as the limb was loaded with fat, as the swelling was very badly definable, as there was great hardness of structure,

and as all attempts at manipulation produced great pain, it was difficult to say what was the exact nature of the mischief below. There might be cyst containing fluid, and rendering the operation of tapping a good practice; there might be a fatty tumour, elongated and flat; or there might be simply exudative matter which had undergone solidification.

"Dr. Richardson took the centre of the tumour as the spot where to direct the ether-spray, and, after about twenty strokes, rendered insensible a space the size of a crown-piece; he then used the spray like a brush, and made the parts equally insensible in the long axis of the swelling; as the skin became hard, the subjacent tissues shrank quickly to their normal proportions, and, indeed, what had been previously a well-marked enlargement, and noticeable by every one, and conveying almost the idea of a distortion, had entirely disappeared. The insensibility once set up was sustained until the deepest structures were involved in it, including the front of the nerve; then, by placing our warm hands over the skin, we were not only able to examine, with firm pressure, without giving the slightest pain, but, as the skin softened, the whole of the structure came under our fingers, softened, and, if I may use such a common expression, like kneaded dough; we could thus take up the tissues, inch by inch, between the fingers, and were able to say that there was no cyst and no tumour. The treatment since this examination has consisted in relieving pain by the occasional use of the spray, and in painting freely the surface affected with tincture of iodine and oil. The result, in every sense, is most satisfactory; the deep swelling is almost entirely taken away, the numbness and tingling of the hand and fingers have subsided, and, in a word, the normal conditions are nearly restored."

ART. 124.—*Syphilization.*

Mr. Henry Lee makes some very valuable and important remarks, in a letter to the Editor of the *Medical Times and Gazette* of February 9th, 1867, on a patient who was supposed to be "thoroughly syphilized," and who was inoculated with some matter from a spreading sore. The consequence was that each of the inoculated points took on a similar action to that of the sore from which the inoculated matter was taken.

Mr. Lee says, "We have here direct experimental proof of a fact which has long been maintained by myself and others—namely, that immunity to one kind of syphilitic matter does not necessarily protect a patient's system against the effects of matter of a different nature. All who have had much experience upon this subject must now know that the ordinary secretion of an indurated sore will, when inoculated, often produce no result, while the secretion from a suppurating sore will produce upon the same patient the specific pustule. But the converse of this—namely, that a patient may become proof against any further inoculation from a suppurating sore, and yet be liable to infection from other kinds of syphilitic matter—is a fact which has certainly not hitherto received in England that attention which its importance demands. Practically, some approximation to an illustration of this

subject may be afforded. A patient may have a series of soft suppurating sores without any constitutional effects being produced. He may then have an indurated sore, followed by the ordinary train of secondary symptoms. This I have frequently witnessed. The suppurating sores do not prevent or modify the indurated sore; and the indurated sore, on the other hand, does not prevent the repeated inoculation of the secretion of the suppurating sores.

"In the experiment above referred to, we may infer that the immunity was produced by the usual mode of inoculation lately practised in England—namely, by a very slight abrasion of the cuticle with the point of a lancet. This kind of immunity, as lately shown, does not imply immunity as far as the deeper structures of the skin are concerned, nor does it imply immunity for other parts of the body, and still less does it imply immunity against the action of other kinds of secretion.

"As far as our evidence at present goes, a patient might therefore be 'thoroughly syphilized,' as far as it could be done, by the secretion from ordinary suppurating sores on the surface of the skin, and yet be as liable as any one else to be subsequently infected with the constitutional form of syphilis."

ART. 125.—*Clinical Studies of Cancer.—Treatment of Primary Tumours: Delay.*

By CHARLES H. MOORE, F.R.C.S., Surgeon to the Middlesex and to St. Luke's Hospitals.

(*British Medical Journal*, June 1, 1867.)

In this interesting paper Mr. Moore says, great as he deems the error of treating primary cancers by the injection of acetic acid, it is small in comparison with the delusive trifling with them which occurs in the practice of certain persons, and especially in homœopathy. When acetic acid fails, the disappointed surgeon resorts to the operation which he should have performed at the first. But, in other practice to which Mr. Moore now refers, inadequate or negative treatment is sometimes persisted in until tumours have become well-nigh or wholly unsuited for operation. Mr. Moore asks, to what extent may success be looked for in the treatment of primary cancer? "It is a fact," he says, "both that small variations take place in the apparent size of a tumour, and also that a certain diminution of its bulk may sometimes be obtained by improving the general health, or by suitable local applications. And this statement is not to be confined to innocent tumours, but is true of those also which are cancerous. Indeed, the greater perfection attained in the growth of an innocent tumour confers on it a more stable vitality than is possessed by the elements of cancer, which are at once more multiplied and less mature. Approaching the natural textures in the quality of elaboration, an innocent tumour imitates them in the resistance to artificial destruction, and is therefore much less than cancer is under the control of remedies. But the diminution of a cancerous tumour which follows

upon suitable treatment, apart from the direct effect of local applications upon the skin, is not mainly due to the removal of essential constituents of the tumour. It may be doubted if any part of it which retains the germinating power can be thus destroyed. Contained liquid may be absorbed, surrounding œdema may disperse, and to that extent the growing of the tumour may be arrested, as well as its size reduced. It may be said that, in some cases, a texture once stiff with cancer becomes supple and all but sound again. Even there, however, a residue of the living cancerous element still exists, which may at any time break forth in a renewed growth. Such temporary and partial reduction of a cancerous tumour affords no justification for pursuing inadequate treatment, when the nature of the disease has been recognised and the tumour may be otherwise removed. But what shall be said of a reckless dallying with growing tumours, such as is illustrated in the following two cases? Surely fairness towards our patients requires that we should neither persuade them to adopt useless treatment in the stead of that which is efficient, nor practically consent to their pursuing it when it is hopeless. The connivance of the practitioner in such proceeding results in a fatal, though unseen, dissemination of cancer into adjoining healthy structures, or in a serious increase of the extent and risk of the inevitable operation.

"A widow, aged fifty-eight, whose life had been always healthy, found a tumour of the size of a pea in the right breast. She committed herself to homœopathic treatment for nine months, after which I saw her. Deep in the upper part of the right breast was an oval tumour, having its long direction horizontal, in size between that of a hen's egg and that of a goose's egg. It was slightly granular on its surface and hard. Though feeling moveable, it was in fact closely connected with the breast-tissue, the looseness of which permitted the tumour to roll about. The skin was healthy and still unattached to it; the nipple could be drawn out; there was no adhesion to the pectoral muscle, and no trace of glandular disease. The tumour was sometimes the seat of shooting pain, and it ached after handling.

"Satisfied of the cancerous nature of this disease, I advised that it should be removed. The patient adopted my advice; but, notwithstanding her disappointment with homœopathy, she continued true to the feeling of distrust which she had conceived towards the profession, and she resorted to some unrecognised practitioner for what operation he might practise upon her.

"The left breast of a delicate lady, under forty years of age, contained a tumour of the size of a small cocoa-nut. During two years, in which this tumour had grown from the size of a walnut to its present dimensions, the patient had taken homœopathic medicines, and had not only encouraged herself to hope that they might reduce the tumour, but had apparently failed to notice the fact of its steady increase. It was lobed, convex, inelastic, firm, and tender. The skin adhered closely to it in two parts, and was there red, thin, shining, and tense. Large veins passed from this portion of the tumour over the healthy part of the breast. The mass moved freely upon the pectoral muscle, and there was no trace of axillary disease.

"It was still possible to remove this breast, and I gave advice that it should be done.

"A disastrous delay arose in the following case also, from misplaced confidence in the efficacy of treatment. Whether the error were on the part of the patient or of his medical adviser, a man was allowed to get worse, and so much worse that it was doubtful if his case must not be abandoned, when a double operation rescued him from early death, and restored him to comfort and health for the greater part of a year. It is not yet certain that his useful life will not be further prolonged; but already the patient has, from his point of view, an unanswerable argument against the mistaken kindness of treating cancer without operation.

"A slender man, of about fifty years of age, was sent to me in a wretched condition, with extensive disease of the tongue. From the tip to near the fauces on the left side, and an inch in front of the fauces on the right, the organ was one firm mass of cancer. It was uneven and indented; its whole surface was ulcerated, and the edge was everted and thin. The movements of the tongue were restricted; the mass being capable of moving as a whole, but not of rising from the floor of the mouth, or passing laterally beyond the lower teeth. There was no apparent glandular disease. Saliva flowed copiously, and there was pain in the left ear and temple.

"For several months this man had been pursuing in vain a course of treatment at the Cancer Hospital at Brompton. It had now become doubtful if the disease were capable of removal.

"February 28th, 1866. He took chloroform; and I made an incision in the floor of the mouth within the curve of the jaw, divided the genio-hyo-glossi and other soft parts in the floor of the mouth, drew forward the diseased mass, and encircled the tongue behind it with the loop of an *écraseur*. On the separation of the mass, there was free hæmorrhage, which ceased on the ligature of the lingual vessels.

"He lost at once the pain in the ear and temple. On the fifth day he spoke intelligibly, and on the eighth day he got up.

"April 1st. The wound had nearly cicatrized. The scar was small; and the stump of the tongue was rounded towards it, and convex, though not tipped. On the left side the tongue was soft and healthy; on the right, there was a small firm projection, having no characteristic appearance of cancer, but still unhealed. It was continuous with some hardness in front of it at the floor of the mouth. At my visits lately, I had found the region of the submaxillary glands much swollen, and feeling firm, though rounded and smooth. At first I looked upon this as the outbreak of the disease in the glands; but he assured me that the swelling came on during dinner, and disappeared in an hour; and that, when greatest, it caused pain. I ascertained the fact of the variability in the size of the submaxillary glands, and then concluded that the Whartonian ducts were obstructed in the scar at the floor of the mouth, and that the swelling of the glands was due to accumulated saliva, and their subsidence to its gradual escape. He had regained much strength and natural manner, and he spoke quite intelligibly.

"April 5th. After chloroform, I excised the suspected bit at the right of the stump of the tongue, and then took away what was firm and fibrous at the floor of the mouth. In this latter place there appeared to be chiefly scar, but some of the solid material was grey cancer.

There being some inconvenient oozing of blood, it was necessary to use the actual cautery, and afterwards to apply the perchloride of iron.

"He left the hospital, with the wound healed, on the 25th of April.

"During the remainder of the year he occasionally called at the hospital. The stump of his tongue remained perfectly well, and his speech became remarkably clear and good. But in February, 1867, the mucous membrane on the left of his tongue became superficially ulcerated over several firm rather than hard nodules, which could be felt in the substance of the tongue. Another and more superficial thickening formed on the right side also, fitting the angle between two sound upper molar teeth, and covered with white epithelium. At the same time, the man's lips were covered with herpes, and his stomach was out of order. It was, consequently, not quite certain that the renewed disease in the tongue was cancerous. But when, after treatment and the disappearance of the eruption around his mouth, as well as of the thickening on the right of the tongue, the nodules on the right side did not lessen, I advised him to submit to a fourth removal of the tongue. While he hesitated, I injected the diseased spots with acetic acid."

ART. 126.—*Cases of Cancer Treated by Dr. Broadbent's Method: Injection with Acetic Acid.*

Under the care of Mr. WEEDEN COOKE, at the Cancer Hospital.

(*British Medical Journal*, June 1, 1867.)

Dr. Broadbent's suggestion of a new method of treating cancer is based, as our readers are probably aware, on the very ingenious theory that as diluted acetic acid shrivels up cancer-cells when observed under the microscope, it will act in the same manner when injected into the living tumour; and that as this acid does not coagulate albumen, the injected fluid will permeate the tumour, and so the obnoxious cells will thus be deprived of their vitality, and the whole mass shrivel and become inert, and cease to grow. The four illustrating cases given in the pamphlet were by no means in their results, in Mr. Weeden Cooke's opinion, calculated to support the theory; but nevertheless he proceeded to put this new suggestion to the test of practice, although he did not forget that chemical actions upon dead and living tissues have widely different effects. Neither did it seem likely to him, *à priori*, that acetic acid would find its way more readily into the hard centre of a scirrhus than solutions of iodine, iron, &c., which he had himself previously employed. However, he selected four cases of scirrhus of the breast, one of epithelioma of the rectum, and two of epithelioma of the cheek. He used one part of acid to three of water. The pain produced was not very severe in any of these cases, except in that of the poor fellow who had cancer of the rectum, and he suffered so severely that he would not submit to it more than twice, and it unfortunately happened that the disease was considerably aggravated by these injections. In the two cases of epithelioma of the cheek no effect was produced by the weakened acid. In

one case much stronger acid was used, and then some slight sloughing was produced, but the disease continued to grow. Inflammation arose in the first case of scirrhus of the breast, and recurred upon a subsequent injection three weeks after; much pain ensued, and the patient was unable to attend again. She was a weakly-nervous person. The same injection was used on another out-patient twice without any good or ill effects, and she returned to the country. A very vascular though hard tumour of the breast in a young woman was injected once. Considerable pain was set up, and some inflammation, followed by sloughing, ensued; but the wound healed again fortunately, and the experiment was not repeated. In the case of an old woman in the Cancer Hospital the injection was repeated six times. It seemed to be a favourable case, owing to the presence of cysts in the scirrhus, and the pain produced was bearable; some lessening of the tumour occurred for two months, but the action set up was too much for its vitality; the disintegration proceeded to suppuration, then to hæmorrhage, and the end was not long.

A gentleman came to Mr. Weeden Cooke, two months ago, with a very extensive epithelial cancer of the cheek, for which he had been injected by able surgeons several times. The cancer continued to grow rapidly, nevertheless. A patient now under Mr. Cooke's care with ulcerated scirrhus of the breast has been injected, she thinks, twenty times at the London Hospital, and the tumour was not broken when the treatment was commenced. It has also greatly increased in size.

ART. 127.—*Fifteen Cases in which Cancerous Tumours were Injected according to the Method of Professor Thiersch.*

By Professor NUSSBAUM.

(*Aerztliches Intelligenz-Blatt*, No. 17, 1867; *Gazette Hebdomadaire*, No. 20, 1867.)

Professor Nussbaum, encouraged by the success which followed the employment of nitrate of silver injections in a case of cancer of the mastoid region, has repeated his observations upon a large scale, and is enabled to give the results of fifteen cases. He has tried by turns, and sometimes on the same patient, injections of nitrate of silver and common salt, of pepsine, and of acetic acid.

The solution of nitrate of silver ought to be composed of one part of the salt and 2000 parts of water, that of chloride of sodium of one part of salt and 1000 parts of water. The injections of acetic acid should be made with a solution containing one part of concentrated acid and three parts of water.

It is of great consequence to employ, particularly in injections of nitrate of silver, the directed solution, otherwise the surgeon may run the risk of not completely saturating the tissues. When it is desired to saturate the tumour, the injections should be made at several parts of the tumour. The solution may also be used in the dressings for

covering the tumour. The liquid was injected by M. Nussbaum with a syringe made of glass and silver, and which contained about seven centigrammes of the solution, and was furnished with a long canula.

It is important to puncture the tumour in all directions, and deeply into its tissue. The quantity of solution used varied according to the case. In some instances seven grammes only were injected, but in others as much as thirty-seven grammes of the solution of nitrate of silver was used. The injection of the chloride of sodium ought immediately to follow that of the nitrate of silver. The proportion of the two solutions has not been rigorously fixed; but generally the solution of salt is one-half less, and frequently one-third.

The quantity of pepsine injected by Professor Nussbaum was generally seven grammes.

The immediate effects produced by these different injections were always severe, and the pain in some cases so acute as to necessitate recourse to chloroform. Nussbaum has frequently seen fainting and even syncope occur during the injections of acetic acid and pepsine; and he prefers the use of nitrate of silver and chloride of sodium, because these do not produce such severe effects. Rigors and fever frequently come on after the injections, and the reaction is sometimes so considerable as to make it necessary to discontinue the treatment. Locally, the injections produce œdema, inflammatory swelling, and frequently suppuration and gangrene. It is to these effects certainly that the most decisive results have to a great extent been due, but yet they are not what the surgeon looks for. Thiersch endeavours to bring about a disturbed nutrition of the elements of the tumour, which may cause them to disappear, and not an extensive gangrene of the tissues like that produced by caustics.

The first result of an injection of nitrate of silver and chloride of sodium is the removal of the foetid odour from an ulcerated cancerous tumour. This odour may return after a single injection; but when the operation has been repeated, it disappears altogether. In favourable cases, a healthy suppuration is established, the ulcerations granulate, and cicatrization is perfected.

The following are the results obtained by Professor Nussbaum:—

In four of the fifteen cases the treatment completely failed; it was applied to a cancer of the breast, a cancer of the parotid gland, a cancer of the rectum, and to a glandular enlargement in the neck. In two of these cases the patient died in a state of marasmus. In the last case in which pepsine was injected, syncope and cyanosis were produced, and the treatment had to be discontinued.

In six cases there was marked improvement, but in these either the patients refused the continuation of the injection, and the treatment was not completely carried out, or the disease relapsed.

The remaining four cases, Professor Nussbaum considers to be truly successful. In one of these he injected seven grammes of pepsine into a cancerous tumour of the parotid gland; there was an apparent cure, but the tumour returned in the mouth.

In another case, a cancer of the breast was apparently cured after injections of nitrate of silver and salt; but there was a relapse. The third successful case was one of an enlarged gland in the axilla of a man

aged twenty-nine; but it is doubtful whether this was a cancerous tumour.

The fourth successful case was one of an enormous ulcerated cancer of the breast, which had involved the subjacent ribs and the intercostal spaces. Repeated injections of nitrate of silver and salt were made; numerous abscesses formed, and portions of the tumour mortified and were cut off. The final result of the treatment was cicatrization of nearly the whole surface of the cancerous ulcer.

Professor Nussbaum thinks that the plan of treating cancerous tumours by injection of nitrate of silver and chloride of sodium ought to rank with that of cauterization by arrows, and that it is applicable in cases where the surgeon would not dare to use the caustic; as, for instance, when the thoracic walls are deeply involved. He believes that the employment of pepsine and acetic acid as injections ought to be restricted on account of their producing pain, syncope, and violent reaction.

ART. 128.—*Indolent Ulcers.*

By D. A. MORSE, M.D.

(*Canada Medical Journal*, April, 1867.)

The most satisfactory mode of treatment for an indolent ulcer, around which the tissues are idurated and the surface black, with considerable congestion, is to fill the excavation with a powder composed of—as a whole—ten parts: seven of acet. plumbi, one of pulv. opii, two of calomel. Morphine may be substituted for opium. This, while it excites proper action in the parts, relieves pain, unloads the vessel, and will sometimes change the colour of surrounding parts, in twenty-four hours, to a bright red. In varicose ulcers the lead has a good effect upon the dilated vessels. Apply adhesive plaster to the limb, that the pressure may aid in relieving congestion. The straps will depress elevated edges. The ulcer will heal kindly.

SECT. II.—SPECIAL QUESTIONS IN SURGERY.

(A) CONCERNING THE HEAD AND NECK.

ART. 129.—*Foreign Bodies in the Brain and Lachrymal Canal.*

By Dr. STANGLMAYER.

(*Bayer. Aerztliches Intelligenz-Blatt*, 1866; *Schmidt's Jahrbücher*, 1867.)

The patient was a man forty-eight years of age, a well-known prize-fighter, and of powerful build. Eight days before his death he was in

perfect health. His illness commenced with headache, and in a violent fit of sneezing a portion of a knife-blade, which weighed about half a drachm, was passed from the right nostril, after which he became unconscious and soon died. It was discovered afterwards that this knife-blade was forced into the inner angle of the eye thirteen years before, which accident produced a gap in the bone of the skull three and a quarter centimetres long and one and a half wide, in which orifice the lachrymal and palate bones and the orbital plate of the superior maxilla were involved. It also came out that this same man was seventeen years ago struck over the left parietal bone by a knife, the point of which penetrated into the cavity of the skull about one centimetre, and passed into the cortical substance of the left hemisphere. In this part there was found after death a circumscribed patch of softening; and also about a third part of the *right* anterior lobe of the cerebrum was broken down into soft material, which process appeared to have commenced in the neighbourhood of the crista galli, and the internal orbital foramina.

ART. 130.—*Case of Disease of the Antrum.*

Under the care of Mr. HENRY SMITH.

(*British Medical Journal*, March 2, 1867.)

It is not always easy to distinguish between fluid accumulation in the antrum, and a tumour, malignant or otherwise, developed in the interior of that cavity. In the former case the uniform enlargement of the antrum, and the previous history, may enable the surgeon to diagnose that the swelling is not of a solid character; but it sometimes happens that the appearances of the part are such as to mislead even experienced practitioners, and it is recorded of no less a man than Gensoul, of Lyons, to whom surgery is indebted for the performance of the first case of excision of the upper jaw, that he once cut down upon the cheek with the intention of removing the upper jaw, when the case was not one of tumour, but of purulent accumulation within the antrum. A case lately presented itself at King's College Hospital, in which the fortunate supervention of an attack of erysipelas of the face saved the surgeon from a repetition of Gensoul's mistake. A middle-aged woman was admitted under Mr. Smith's care, with a large swelling in the right cheek, which was pronounced, after examination by Sir W. Fergusson and Mr. Smith, to be probably due to the development of a malignant tumour in the antrum Highmorei. There being no enlargement of the glands under the jaw, the case was thought to be a favourable one for excision of the upper jaw. Fortunately, however, while the patient was in the hospital she had an attack of erysipelas of the face, which lasted between two and three weeks; and, at the end of this time, the swelling in the cheek, which had increased considerably, diminished suddenly on the bursting of an abscess beneath the under eyelid. This materially altered the view taken of the case, and then all idea of removing the upper jaw was abandoned. As the swelling in the cheek, however, did

not disappear entirely, after another three weeks had elapsed, Mr. Smith performed the usual operation for evacuating any fluid matter pent up within the antrum. The second molar tooth, the fangs of which correspond to the floor of the cavity, was extracted, and a large triangular trocar was pushed up its socket. No pus came away, however: and, after nipping away a portion of the alveolar ridge, so as to be able to pass a finger into the antrum, the cause of the mischief was found to be necrosis of a portion of the bony wall of the antrum, which part was consequently removed. This case is of considerable interest as showing the difficulty of making a sure diagnosis between disease calling for removal of the upper jaw, and disease limited to a portion of the maxilla only. It teaches this lesson, that in all instances in which the least doubt exists as to the nature of the affection, a preparatory puncture should be made into the antrum by means of a perforator, either pushed through the socket of the second molar tooth after its extraction, as was done by Mr. Smith, or through the canine fossa under the cheek.

ART. 131.—*On the Choice of Astringent Applications for Purulent Catarrh of the Ear.*

By Dr. A. POLITZER.

(*Wien. Med. Presse*, 1866; *Schmidt's Jahrbücher*, 1867.)

Dr. Politzer dwells strongly upon the fact that the application of astringent remedies in acute cases, and when symptoms of irritation are present, is frequently very pernicious. Symptoms of inflammation frequently come on during a chronic discharge from the ear; and these are often aggravated by astringent drops.

In cases of acute purulent catarrh of the membrana tympani, weak solutions of the preparations of zinc and lead are very efficacious. The preparations of lead frequently act quicker after a zinc solution has been used for a few days before. Perchloride of iron, alumin, and nitrate of silver, are not generally adapted to acute cases. In cases of chronic otorrhœa, attention should be turned to the size of the perforation, for when the orifice is large, solutions which might produce permanent precipitates in the tympanum, such as those of the preparation of lead and iron, ought not to be used. Weak solutions of zinc and of powdered alumin are best adapted for those forms of purulent catarrh which are connected with a large-sized perforation of the membrana tympani.

In cases of purulent catarrh with a small perforation of the membrana tympani, a solution of lead dropped in is very useful. The solutions of perchloride of iron, nitrate of silver, and alumin, in cases of chronic otorrhœa are generally of but little use; the concentrated solution of perchloride of iron may, however, be applied with success to extensive growths of the membrana tympani and meatus. An extremely favourable result has been brought about in many cases by the use of powdered alumin in purulent catarrh. *The solutions of tannin are uncertain in their action.* Most of these preparations lose their favourable

action after being applied for too long a time without being suspended. Sometimes polypi and growths form during the long-continued and useless application of an astringent solution. No preparation should be applied for a longer period than from three to five weeks, and an interval of from eight to fourteen days should be allowed to expire before another remedy is resorted to. Experience teaches that the fresh remedy then acts better than it would have done if applied directly after the omission of the preceding one.

ART. 132.—*On Subjective Auditory Phenomena dependent upon Disease of the Organs of Hearing.*

By Dr. ADAM POLITZER.

(*Wien. Med. Wochenschr.*, 1865 ; *Schmidt's Jahrbücher*, 1867.)

The following affections of the organs of hearing may excite buzzing or rushing noises in the ears:—

1. Ceruminous concretions. The rushing noise in cases of this kind may be caused by abnormal pressure upon the membrana tympani and the structures in connexion with it, or less frequently by retention of air within the external meatus.

2. Furuncle of the meatus auditorius externus. Here the cause of the noise may be closing of the meatus, sometimes associated with hyperæmia of the membrana tympani and labyrinth, or reflex-action of the auditory nerve, excited through those branches of the fifth nerve which are distributed to the external ear.

3. Eczema of the outer portion of the meatus. The cause of the rushing may be obstruction of the meatus externus through excreted epidermis, co-existent swelling of the mucous membrane of the tympanum, or reflex-action of the auditory nerve.

4. Acute inflammation of the membrana tympani producing hyperæmia of the labyrinth.

5. Affections of the tympanum are the causes, in more than two-thirds of all the cases, of buzzing in the ears. The noises occur far less frequently in purulent catarrh *with* perforation of the membrana tympani than in simple catarrh *without* a perforation. The noise may be owing to great intra-auricular pressure, which causes an abnormal stretching and irritation of the terminal fibres of the auditory nerve, and also disturbs the circulation in the labyrinth, and consequently the nutrition of the nerves. Hyperæmia of the tympanic mucous membrane or secondary changes in the labyrinth, such as persistent hyperæmia, dilatation of the vessels, chronic exudation, and the formation of chalk-stones and pigment, may be the causes of subjective sensations of hearing.

6. Primary structural changes in the labyrinth, as cœchymoses, extravasations of blood, new formations in the cochlea and in the nerve-tissues; chalk masses in the labyrinth, varicose dilatation of the vessels of the auditory nerves, colloïd degeneration of the nerves.

Politzer, from his own extensive experience, is able to corroborate Türk's assertion, that subjective noises can in many cases be varied in intensity by pressure upon the mastoid process of the temporal bone, or upon the first cervical vertebræ. It was observed in cases of disease of the tympanum and Eustachian tube, also in cases where the diagnosis between disease of the tympanum and labyrinth was uncertain, that the noises were in many instances diminished, and also in some cases, but less frequently, increased in intensity, so long as pressure was made upon the mastoid process. Politzer also mentions a remarkable phenomenon which has been observed, but of which he cannot give an explanation, in an instance of impaired hearing on one side; when the sound ear was stopped by the finger a rushing noise was heard in the opposite diseased organ: this noise, according to the statement of the patient, was of great intensity, but disappeared as soon as the finger was removed from the healthy ear.

Politzer mentions the following as noises produced in the internal ear. 1. The snapping noise, which, according to J. Muller, is caused by the spasmodic contraction of the tensor tympani muscle. 2. The rattling noise dependent upon catarrh of the middle ear. 3. The noises caused by the circulation of the blood.

Politzer does not speak favourably of the action of the narcotic internal remedies which have been recommended in cases of subjective noises in the ears; but he has, however, observed a very great abatement of the annoyance after the *external* application of narcotics, either as embrocation or in drops. He places no reliance upon counter-irritants, blisters, &c. Internal remedies have but very little influence, except in exceptional instances, such as cases of constitutional syphilis, which should be treated by iodide of potassium.

ART. 133.—*Necrosis of the Lower Jaw: Removal of Dead Bone.*

Under the care of Sir WILLIAM FERGUSSON.

(*British Medical Journal*, February 16, 1867.)

Necrosis of the lower jaw used to be a common affection when ordinary phosphorus, instead of the red variety, was employed in the manufacture of lucifer-matches; but it rarely occurs idiopathically, as the result of inflammation of periosteum covering the bone, as was the case in the present instance. The patient was a common labourer, about fifty years old. He had been a sufferer for six years; and, as Sir W. Fergusson remarked, this was no extraordinary length of time for necrosed bone in the lower jaw to remain fixed. As a rule, separation was very slowly effected in such cases, more slowly than in other bones; and he had seen the alveolar ridge of the inferior maxilla, and as much as half an inch of the bone below it, lying bare in the mouth for years without becoming loose. In the present instance, a large oval piece of dead bone was easily extracted from the front of the

lower jaw ; but some difficulty was experienced in pulling away another large fragment of bone from the left side, where it was imbedded in new bone and hardened tissues, and an elevator had to be used. Behind this last, and higher up, was a third piece, which no attempt was made to remove on this occasion, as it was not yet perfectly loose. Sir William observed, however, that he expected that this piece would very soon become loose, as, after the removal of a large piece of necrosed bone, it generally happens that smaller pieces subsequently get detached of themselves, and are pushed up, as it were, by the granulations. In a middle-aged female who came into the operating theatre immediately after this patient, this remark was well exemplified. A week previously, a piece of necrosed bone had been removed from her hard palate, and another piece which had been left behind was now perfectly loose, and was easily extracted.

ART. 134.—*On the Treatment of Fractures of the Lower Jaw.*

By H. O. THOMAS, M.R.C.S.

(*The Lancet*, January 19, 1867.)

Mr. Thomas requests those of his professional brethren who have the opportunity to test the usefulness of a plan he has practised the last four years in treating fractures of the lower jaw. It would best illustrate his treatment to describe one or two cases.

T. S., whilst engaged in a street row, received a blow on the lower jaw, on the 5th of April, 1866. Mr. Thomas examined the jaw the following morning, and found a fracture at the symphysis, with great mobility of the fracture. Having requested an assistant to steady the head, whilst another drew down and everted the lower lip, a fine drill was passed (at the point of reflexion of the mucous membrane) through the jaw, about a quarter of an inch on either side of the fracture, using an ordinary Archimedean drill, one-sixteenth of an inch in size. He then passed through a silver wire, about the strength of that used by whip-makers. Having secured the ends in front of the jaw, they were then drawn tight and twisted until the fracture was firmly fixed. On the fifth day it became a little slack, and was tightened by an extra twist, which required to be repeated every three or four days. In twenty days there was but slight motion at the fracture, and on the twenty-eighth it was quite firm and united. The patient from the first day expressed himself as able to use the jaw, and was urgent to be allowed to do so, which was not permitted.

Thomas B., a ship-carpenter, was struck by a piece of timber on the face, which threw him from the stage on which he worked, and he fell a depth of seventeen feet. On examining him an hour after the accident, there was found a fracture of the lower jaw on the right side, at the situation of the first and second molar teeth, which had been knocked out by the force of the blow. There was great mobility of the fractured part, more than Mr. Thomas recollects seeing before in frac-

tures in that situation. The remaining teeth were firmly *in situ*. Having had the inside of the mouth well exposed by drawing aside the cheek, his assistant kept the third molar tooth steady with a piece of wood directed across the mouth from the left side whilst a hole was drilled across the tooth from its front to its inner surface, this tooth holding firm in the posterior portion of the fracture. A strong silver wire was then passed through the hole and brought forward, passing it between the bicuspid and canine teeth; the ends were then drawn tight and twisted, making the fracture firm. The wire was tightened every four days, and in three weeks there was moderate union; in four weeks it was sufficiently secure to allow the wire to be removed and the jaw used. This was the only treatment in the shape of mechanical appliance. An opiate was given every other night. This patient was also with difficulty restrained from using his jaw for masticating.

A case also came under Mr. Thomas's care four years ago, which occurred in a patient whilst engaged in "docking a ship," when he was struck on the jaw by a "capstan-bar," and a portion of the lower jaw, corresponding to the two middle incisor teeth, was detached and afterwards removed. The same treatment was followed as described in the first case, resulting in firm union in ten weeks.

Many cases of fractured jaw do well with comparatively simple treatment; and in cases where there has been great violence and much mobility of the fractured bones, the above practice of securing the body of the bone by means of wires in the way described, Mr. Thomas believes to be peculiarly advantageous, to the exclusion, with few exceptions, of all other apparatus, and applicable to almost any form of fracture of the body of the jaw.

The passage of a fine drill in the situation described in the above cases does not appear to have endangered the teeth, care being taken to strike, if possible, the interspaces of their roots. The body of the tooth which was drilled in the second case was attended with but little discomfort to the patient, and which the skill of the dentist will probably make good again.

ART. 135.—*On Polypus of the Nose; more particularly in reference to its Treatment.*

By THOMAS BRYANT, F.R.C.S., Assistant-Surgeon to Guy's Hospital.

(*The Lancet*, February 23, 1867.)

In this communication Mr. Bryant confines his observations entirely to the consideration of the simple mucous or gelatiniform polypus of the nasal passages, more particularly in reference to its treatment; for these cases, in their nature and progress, differ essentially from the fibrous or more solid forms of polypi, and in their treatment require very different measures. The practice he suggests and proves of value in the one kind will be found absolutely useless in the other; and the treatment which

is called for in the firmer forms of growth is, as a rule, unnecessary in the simple or mucous variety. The diagnosis of the case, as a consequence, becomes of primary importance, for a correct treatment can only be carried out when the true nature of the disease is fairly appreciated.

Diagnosis of the mucous polypus.—These growths, Mr. Bryant says, are seldom recognised in the early period of their existence, for they are rarely accompanied by any pain or other inconvenience beyond that of a slight excess of discharge, and this is generally looked upon as the result of "cold." This discharge will, however, probably be of a more serous character than is usually found to exist in an ordinary coryza. Should the nose be examined at this stage of the disease by the aid of a speculum and a reflector, or good sunlight, a pale, semi-transparent, succulent-looking outgrowth, not unlike a skinned white grape, or a fringe of many such grape-like bodies, will probably be seen hanging from the middle turbinated bone; for these polypi never grow from the nasal septum, but almost always from the bone to which he has alluded.

When the disease has progressed a stage beyond the one we have described, obstruction to the nasal passage will become a marked symptom, and this condition will vary in degree from a slight impediment to nasal respiration to its complete prohibition, according to the size or number of the polypoid growths. These polypi may grow so large or be so numerous as not only to completely fill the nostril or nostrils, but they often expand the nose, and are not unfrequently found to project externally through the nasal orifice, or plug the posterior nares and upper part of the pharynx.

The conditions for which this disease is most commonly mistaken have already been mentioned—viz., a crooked nasal septum and a thickening of the mucous membrane covering the lower turbinated bone. The knowledge, however, of the fact that these conditions may give rise to symptoms which have been mistaken for nasal polypus should be amply sufficient to induce the surgeon to make a careful local examination, when the error of the diagnosis will be at once discovered.

We will now proceed to the more immediate object of this communication—the treatment of the disease.

Treatment.—There has hitherto been but one kind of practice adopted for the treatment of these nasal polypi to which anything like success can be attributed, and that is their forcible abruption by means of instruments. Some surgeons employ a large pair of well-made forceps, which are carefully applied to the peduncles of the growths; whilst others prefer the "noose," or instrument by which a wire or cord is slipped over the body of the polypus, and its neck encircled. In both instances the growth is forcibly torn away from its attachments and relief afforded. As far as it goes this treatment is doubtless good, and may be employed whenever the polypus is of sufficient size to require interference; but all surgeons are aware of the unsatisfactory condition of patients who have been thus treated. It is true the chief portions of the disease for which the surgeon has been consulted may be removed, and a certain measure of relief afforded to the patients; but how long can this relief be promised? How soon will the same symptoms of the disease reappear, and a fresh operation be demanded, to be followed by

the same relief, relapse, and surgical interference? We all know these cases may go on during the patient's life; that the period of immunity from the disease may vary in different patients, or even in the same patient at different periods; but we also know that, as a rule, a return will take place, and that sooner or later a repetition of surgical treatment will be called for.

It was this unsatisfactory state of matters which induced Mr. Bryant to look about for a different plan of treatment, and having now employed it for some years with invariable success, he can with considerable confidence recommend it for general adoption. He is disposed to regard it as a practical wrinkle of no mean value in the treatment of a hitherto very intractable affection, and it is with some little pleasure that he now brings it publicly before his professional brethren. He demonstrates the practice by the quotation of cases.

CASE 1.—The first case in which I was led to adopt the practice, in the year 1862, was in a young woman, E. C., aged thirty-two, who had been under my care at Guy's Hospital for several years. She had both nostrils affected with polypi, and for this she sought relief about every three months. Her nostrils were remarkably small, so that the operation for removal was one of difficulty. I had tried the injection of astringent lotions with no success, or with so little that it was not worth describing under that name, and gave them up. I then looked about for some powerful astringent that might be locally applied, and that would yet be innocuous to healthy mucous membrane, and found it in tannin. I ordered this to be used as a snuff, the patient to get some friend to blow it daily up the nostril through a quill. In one month this patient came to me well. Both nostrils were quite clear and free from all signs of disease. This patient was under my observation for three years afterwards and no return of the affection made its appearance.

CASE 2.—The second case I propose to quote occurred in the person of a gentleman, aged fifty-five, who had polypoid growths in both nostrils for ten years. When he came under my care in July, 1864, both nostrils were completely plugged. On the left side the nose was filled even to its external orifice; on the right the growth occupied the posterior nares, and was not visible in front. I cleared the left nostril with tolerable ease by means of the instrument I generally employ, the "noose," taking away one of the largest polypi I ever removed. Some bleeding followed the operation, and as the polypus of the right side could not be brought forwards for manipulation its removal was postponed for one week. I thought, however, it would be well to try the effects of the tannin in this case, and prescribed it as in the last. The following week, when I saw this gentleman again, he came into my consulting-room with some spirit, saying that he was all right, that on the third day after the use of the snuff a polypus as large as the one I had removed from the left nostril had come away from the right, and that he was quite well. This gentleman was ordered to keep some of the snuff by him, and to use it on the slightest indications of obstruction to his nose. He has remained well ever since, and when I saw him early this year he was quite free from the disease.

CASE 3.—Sarah S., aged sixty, had been the subject of polypus in both nostrils for many years. She had been under my care for several years, and had been operated upon five times, the last operation having been performed three months previously. When I saw her on the 19th of February, 1866, her nose was full of polypi, even to the external orifice. Although an extreme case of the disease, I deemed it right, as an experiment, to try the effect of the "tannin" used as a snuff; and on March 12th (three weeks

afterwards) the nose was quite clear. From the day of its use the growth began to wither and to slough off. By the 26th of March, on a careful examination of the nostrils, no signs of the disease could be made out. The mucous membrane also appeared healthy. I saw this patient on the 28th of May, and she was still well.

CASE 4.—Stephen B., aged thirty-one, came to me on the 24th of March, 1866, with nasal polypi completely occluding the right nostril. He had had the disease six or seven years, and had been operated upon many times, the last being about a year ago. Tannin was ordered as a snuff, and on the fourth day (March 29th) the growth had much diminished: it was evidently withering. He had then a slight passage. On the 5th of April the polypus had disappeared, and he could breathe freely through the nostril. On the 5th of May he was still well.

CASE 5.—James S., aged sixty, came under my care on the 10th of May, 1866. He had been the subject of nasal polypi in both nostrils for about five years, and been operated upon three times. Both nostrils were completely filled, no passage existing through either side. Tannin was ordered, and on the 20th of June he could blow through both nostrils, no signs of the disease existing. On the 10th of July he was quite well, the nose looking as healthy as it could be.

CASE 6.—George G., aged fifty-six, came under my care at Guy's Hospital on Oct. 8th, 1866. He had had polypi of both nostrils for some years. He was operated upon in Nov. 1865, and again in April, 1866. When he came under my notice, both nostrils were completely filled with small polypi. Tannin was ordered as a snuff, and in two weeks the nose was clear, no signs of disease existing. I saw him one month subsequently, when he was well.

The above examples appear to be conclusive as to the power of "tannin" to cause destruction of the gelatiniform polypus. When Mr. Bryant first employed the snuff, he thought it would be useful only in destroying small polypi, and in thus retarding the growth, if not preventing a recurrence, of the disease, after it had once been surgically removed; but subsequent experience has proved that it does much more—that it has the power of destroying even the largest growths, and of preventing the recurrence of a troublesome and obstinate affection.

ART. 136.—*On the Treatment of Trichiasis and Distichiasis.*

By ULRICH HERGENSTEIN, Odessa.

(*Arch. f. Ophthalm.* xii. 1, 1866; *Schmidt's Jahrbücher*, 1867.)

Hergenstein is not satisfied with the methods hitherto devised for the removal of trichiasis, including that of Jäsche-Arlt, although this has in his practice succeeded better than any other. He says that the attempt to remove the cilia has in the majority of cases no good result, and that it should rather be the surgeon's endeavour to *destroy entirely the hair follicles, and to leave at the same time the free margins of the eyelid uninjured.*

With this object Hergenstein draws a thread across the eyelid, under

the muscular layer and close upon the outer surface of the cartilage, for the purpose of producing suppuration in the follicles of the cilia which are situated here. The thread is pulled from side to side every day, and is withdrawn after the lapse of about a week, as soon as some yellow spots of pus are visible.

The following are the details of the operation, which in the memoir are explained by a woodcut :—

The thread is first carried into the lid at the external canthus, being made to enter the free margin between the anterior and posterior edges. It is then carried directly upwards for a short distance, and the end withdrawn; it is next inserted again at the same orifice, and carried along the lid towards the internal canthus, and parallel to the free margin of the eyelid. About midway between the external and internal the end is withdrawn and again inserted at the same orifice, and is then carried on to the internal canthus, where it is made to bend down at a right angle, as on the outer side, and is finally brought out at the internal canthus at a point corresponding to the first point of entrance.

The ends of the thread are crossed and fastened by adhesive plaster under or over the other lid. During the operation the lid should be held stretched by an assistant. A bandage should be worn by the patient, and after the shedding of the eyelashes blue spectacles ought to be used, and the eye douche regularly applied.

ART. 137.—*A Remarkable Case of Spontaneous Luxation of the Crystalline Lens and its Capsule into the Anterior Chamber.*

By Dr. GOURIET, of Niort.

(*Gazette des Hôpitaux*, No. 43, 1867.)

M. Gouriet has reported the following singular case of displacement of the lens and its capsule :—

On January 25th, 1861, I was called in to treat M. C., a corn merchant, aged forty years, who was in the second stage of pulmonary consumption. I had for a long time noticed in this man the following peculiarity: there appeared to exist in the left eye a clear white speck which was visible at a distance of five or six paces, and gave to the countenance a sinister expression.

Having attended to the chief affection, I examined M. C.'s eye, and perceived that this bright white colour had its seat in the crystalline lens. The tint was uniform, and could be compared to nothing so well as that of snow or very white linen. From the extent of the shadow cast by the iris, I judged that this cataract was solid, and I attributed it to a cretaceous metamorphosis of the crystalline and its appendages. The patient stated that he had lost the sight of this eye when about ten years of age, independently of any appreciable cause, either traumatic or internal. The pupil was round and contractile, the cornea

was normal, and the eyeball presented nothing special as to size. The right eye was perfectly healthy.

I continued to treat M. C. for the lung affection, and on Feb. 11th the whiteness seemed to me to be of a greater extent than usual; in making a closer examination, I perceived that the lens and its capsule had passed into the anterior chamber. Some few peripheral layers of the capsule were recognised as being quite rigid, and of the same white colour as the rest of the capsule and the lens. The circular contour of the displaced body, and its regular form, confirmed the opinion that I had formed from the first as to the solidity of the cataract.

It is a singular fact that this luxation produced so little uneasiness, that when I mentioned it to my patient he was much surprised, and went directly to examine it in the glass.

Fearful lest the presence of the crystalline lens in the anterior chamber might produce serious inflammation, I proposed to extract it, but M. C. wished the operation to be deferred, and, contrary to my expectations, and to my great astonishment, not the slightest symptoms of inflammation were afterwards presented. The pulmonary disease, however, followed its course, and carried off my patient on May 30th, 1862. Up to the time of his death, the crystalline apparatus had not diminished the least in size, and no trace of inflammation or even of injection had been presented, either within the eye or upon the surface of the organ.

Dr. Gouriet was led to publish the details of this case, as he thinks it an extraordinary fact that the lens and its capsule remained for more than fifteen months in the anterior chamber without causing any disturbance.

ART. 138.—*Gonorrhœal Ophthalmia.*

(*British Medical Journal*, March 16, 1867.)

M. Gosselin strongly recommends frequent injections of highly alcoholized water under the lids in cases of gonorrhœal ophthalmia.

ART. 139.—*When One Eye only is Blind, is it prudent to attempt to Restore Sight while the other remains perfect?*

By HAYNES WALTON, F.R.C.S., Surgeon to the Central London Ophthalmic Hospital, and to St. Mary's Hospital.

(*Medical Times and Gazette*, February 2, 1867.)

In discussing this subject Mr. Walton says:—It may be stated in general terms that a person who has lost an eye, besides being blind on one side, has but a very limited field of vision for near objects beyond the centre of the face, and which angle is regulated by the degree of

prominence of the nose; that the definition of sight which depends on binocular vision is totally lost; that the power of accurately estimating distance is lost, and in consequence of this mistakes are made in certain mechanical acts, as the pouring of a liquid from one vessel to another, although the vision is quickly rectified by touch. This defect may remain in degrees. Whether it is always entirely overcome by those who have lost an eye in infancy Mr. Walton does not know, for it has never occurred to him to ascertain. That with labour requiring minute sight there are more readily developed the many effects of impaired vision than when two are used, because the one organ cannot do the work of the two. These are points that some one-eyed people are loth to confess, and they cannot be blamed for their caution. It is, therefore, apparent that an individual is the better for two sound eyes, and that that measure is admissible which, while it restores sight, does no harm elsewhere.

Mr. Walton knows of several persons who are now blind in both eyes because they cannot make up their minds to have anything done. Every surgeon must have seen patients die rather than submit to any operation that would save life.

As the physical defects of the eyeball proper that need operation for the restoration of the function of sight are cataract, and the loss of the pupillary aperture, it is impossible for perfection to be restored. After the removal of cataract, peculiar glasses are needed. In the formation of an artificial pupil, the aperture must be either at the margin of the iris when the quality of the sight is lessened, or in the centre when the lens is absent, and minute use of the eye must depend on cataract glasses. Unfortunately, an eye cannot be fitted with a cataract glass and brought up to a healthy state so as to match the other eye. The adjusting power is gone, and, for seeing at different distances, glasses of different foci are needed. Therefore arises this important consideration, on which the whole matter hinges: Will this kind of sight, which must be inferior to that of the other eye, and at times in marked degrees, be really of material service? It may be premised that, if a surgeon is to answer from his own knowledge and experience, a long time is required to gather facts and dates; and, to avoid errors, the patients should be watched for years. Mr. Walton speaks then from what he has seen, and says yes. He should be deterred from operating only by the probability of the eye being too much damaged to give that amount of sight which is known as useful sight, on which point much discrimination and a long familiarity with ophthalmic surgery are imperative. He has made lateral pupils, the crystalline lens being present, and central pupils, the lens being absent. He has selected those cases only in which he was as sure as he could be that the fundus of the eye was sound, and the retina unimpaired, and the other conditions such as would insure the best amount of sight to be derived from such an operation. Mr. Walton places stress on this; for without it, without useful sight can be fairly expected, he would not operate. The false pupil he has invariably made either upwards or downwards, never inwards or outwards, on account of the double vision which would probably ensue. In every case decided benefit has followed. Side-blindness has been removed, and direct vision assisted; in those cases in which

the lens was present there has been restoration of the ocular adjustment. Mr. Walton gives the following general results, avoiding minuted details:—
“My last patient was operated on at the Central London Ophthalmic Hospital in September of this year. He was a soldier in a hussar regiment, and was acting as groom to a captain. When he was sent to me I found that there was a dense central corneal opacity with prolapse of the pupil, almost the whole pupillary margin being adherent. I made an upward pupil by drawing out a bit of the iris and cutting it off. Mr. Wilkinson and Mr. Taylor, my colleagues, assisted me. Perfect success ensued. My patient was highly delighted at the addition to his vision and in the improvement in the focussing power of the eye. He was particularly proud of his distant sight, but he could, too, read quickly No. 9 of Jaeger's test type. There was not the slightest confusion in vision. His master, who examined him with care, wrote to thank me for the result, and enclosed a donation for the hospital.

“In every case in which I have made a central pupil after the loss of the lens, the patients have expressed their satisfaction and pleasure at the benefit they have received. I am certain, therefore, from the result of practice, of the advisability in certain cases of making a false pupil when one eye is sound. It would seem that confusion of vision does not, and is not likely to, ensue when there is perfect vision in the one eye. This agrees with the fact that in ‘coloboma iridis’ in one eye no confusion follows.

“I have a far more extended experience in operating when cataract affects only one eye. In the cases selected for my trial and observation, I was quite sure that the other eye was sound and not invaded by cataract.

“In nearly all, my patients were under adult age; a few were young adults, and two were past sixty years of age. I will allude to five of them specially, because they were in private, were persons of intelligence, and all were seen several times after they had left me as patients. One was a well-educated, clever publican, about thirty-two years of age. Cataract formed without any apparent cause. I operated by solution. No better result could have been obtained. The last time I saw him he assured me that he was as pleased with the new eye as ever. He said, ‘The more I think of it, the more satisfied I am. I no longer run against people and things.’

“Another was a master builder, twenty-six years old. His cataract was idiopathic. He sought treatment because the blindness on the one side was ‘the plague of his life.’ The result of the operation enabled him, as he expressed it, ‘to get on better with his business.’

“The third patient, about forty years of age, was a clerk in a house of business. His disease was idiopathic. He was fully satisfied. He found the benefit he had been told he might expect.

“The fourth was a governess. She came to me several times to show herself after my professional attendance had ended. She was well pleased at what had been done.

“The last was a guard on a railway. He was thirty years of age. The eyeball was wounded by a splinter of wood, and cataract ensued. Since my operation he has been able to attend to his work satisfactorily. Before I operated he frequently blundered, and his defect was apparent to others.”

As the evidence which Mr. Walton has collected establishes the propriety of endeavouring to restore an amount of sight less than the standard of health in the one eye, while the other is healthy, he advocates such practice when his opinion is sought. When a child with a wounded eye and an opaque lens is brought to him by his distracted parents, anxiously asking what can be done, he sets before them the state of the case, and recommends the removal of the cataract.

Mr. Walton adds: "After fifty years of age, when, as a rule, the operation for solution is no longer applicable, because the lens is harder, and the operation for extraction is the more proper, circumstances are somewhat altered, and the opinion I give a patient is modified, and for this reason. The operation for solution being so very safe, I can with confidence promise success to my patient, if time be allowed me. Extraction is attended with risk of failure. Although I suspect, from all I can learn, that I get as good results from this operation as my neighbours, I know that I can get the success that I can command in solution. Then there is one more degree in the quality of restored sight in the extraction cases. The sight may be very good or very inferior, although the term success is applied to all. Added to this, when a person is old, he has pretty nearly done with the active affairs of life, and he can then get on tolerably with one eye. I endeavour to do my duty in explaining all this to a patient—adding, 'If nothing untoward happen, you will be the better for the operation; if it do, you will be none the worse as regards the other eye'—and leave him to determine between the unpleasantness of the operating process and chance of failure, and the probability of success and the addition of a certain amount of sight."

ART. 140.—*Acute Glossitis.*

By HENRY GRAY CROLY.

(*The Medical Press and Circular*, February 6, 1867.)

Dr. Croly brought the following cases under the notice of the Surgical Society of Ireland, as illustrative of glossitis and its treatment:—

Acute Idiopathic Glossitis, ending in Suppuration, and followed by Abscess at the back of the Pharynx; Result, Recovery.

CASE 1.—J. M., aged nineteen years, a farm labourer, of temperate habits and robust frame, bathed in the sea at Bray on the 17th of August, 1856; did not dry himself sufficiently; got a wetting on his way home; the following day he went to work as usual; reaped corn and worked very hard; on his return home in the evening he was attacked with severe shivering, felt soreness in his throat, and had slight difficulty of swallowing; he tried to work on the next day, but failed; felt his tongue swollen. I was requested to visit him on the 20th instant, by his father, who stated that his son had lumps in his throat, and was choking. On arriving at his house I found him sitting up at the fire, with an anxious and flushed countenance; saliva dribbling from his mouth; speech thick and indistinct; tongue swollen and tender to the touch; mucous membrane covering the sublingual space in-

filtrated, and raised on a level with the top of the teeth; considerable hardness under the chin; pulse 120, and full; patient has not slept since the commencement of the attack. I immediately punctured with a sharp-pointed bistoury the sublingual space, which was followed by a free discharge of blood and serum; prescribed a mixture containing tartar emetic in nauseating doses, administered a brisk purgative, and ordered half a dozen leeches to be applied under the chin. I recommended incisions into the tongue, which were objected to.

August 21st. Tongue swollen and indented by the teeth. It was now evident that matter had formed in the cellular space underneath the tongue, and after considerable persuasion I was permitted to make an incision under the chin, which I accordingly did, passing the scalpel well up in the *median line*, which gave exit to a large quantity of blood and pus.

22nd. Pus flowing freely through the openings at each side of the frænum linguae, where I made the punctures, and on pressing the tongue on the dorsum pus escaped in large quantity through the incision beneath the chin. The treatment now consisted in the application of linseed poultices, quinine mixture, and beef-tea. In four days the patient complained of soreness in his throat and difficulty of swallowing. On examination I observed a large abscess at the back of the pharynx, which I opened with a bistoury, guarded with lint nearly to the point. Some very foetid pus was thus evacuated, to the immediate relief of the patient, who steadily improved, and was very soon in the enjoyment of his usual health.

Acute Idiopathic Glossitis, involving the Left Half of the Organ only, ending in Resolution.

CASE 2.—J. K., aged thirty-eight years, of temperate habits, but an inveterate smoker, by occupation a warder in the Spike Island Government Convict Prison, of which I had charge; had not been exposed to wet or cold lately; could not assign any reason for the attack. This man presented himself at the prescribing-room attached to the hospital on the morning of the 20th of November, 1860, complaining of sore-throat, accompanied with pain and difficulty in swallowing; he was much disturbed during the night, slept badly, and started up frightened by unpleasant dreams; his speech was thicker than usual, and his expression presented much anxiety. I made a careful examination of his throat, but found the tonsils, uvula, and palatine arches free from even slight efflorescence; he winced when I made pressure with my finger on the *base* of his tongue, particularly when I pressed on the *left* side of the raphe. I ordered the man to be admitted at once into the hospital and prescribed a purgative.

November 21st. Patient has not slept; his bowels were freely acted on by the medicine; there is a slight swelling of the left side of the tongue *near its base*; skin hot and dry. A diaphoretic mixture prescribed.

22nd. Patient's speech is very *thick*; he had a bad night; he says he has *acute pain* in his tongue far back at the left side; countenance not very anxious; he coughs occasionally, and then discharges from his mouth a quantity of viscid ropy mucus; there is a slight swelling under the angle of the left jaw, not so far back as the tonsil, which is very tender to the touch; the tongue is now considerably elevated towards the roof of the mouth at the *left side*, the right side seems natural; the edges of the organ are red, and the centre covered with a white exudation; the left side of the *apex* has a thick rounded appearance, and contrasts remarkably with the opposite part; the sublingual space is slightly elevated, and the crest running up towards the under surface of the apex of the tongue is visible, but not very distinctly; the patient says he had several severe shivering fits during the night; the

saliva dribbles constantly from his mouth. The tongue having been well dried, I applied six leeches on its anterior and left side (a thread was previously passed through the end of each leech); they filled rapidly and fell off; the bleeding was encouraged by gargling with warm water.

23rd. Tongue much less swollen, but still considerably enlarged; the tenderness and swelling continue under the left angle of the jaw; three leeches were applied to the painful part; a soft poultice of linseed-meal was applied when the leeches fell off.

24th. Patient slept well; countenance natural; he was discharged cured in a few days.

Acute Idiopathic Glossitis engaging the entire Tongue, terminating in Resolution, in a Boy Thirteen Years Old.

Case reported by Mr. W. I. Wheeler, Purser-Student (now Dr. Wheeler).

CASE 3.—A. L., a delicate-looking boy, aged thirteen, was admitted into the Children's Ward of the City of Dublin Hospital, on the 12th of November, 1864, under Mr. Croly's care, suffering from inflammation of the tongue. His mother cannot assign any reason for the attack. On admission his countenance was anxious; his tongue much enlarged and protruded from the mouth; his respiration was difficult and he could scarcely swallow. Mr. Croly made a free incision with a sharp-pointed bistoury at each side of the raphe, from which blood and serum flowed profusely. The wounds gaped widely, and as the hæmorrhage continued very smartly, the wounds were plugged with lint; the plugs were removed in a few hours; there was no further bleeding; the little patient was greatly relieved by the prompt treatment.

November 13th. Wounds looked like mere scratches; the boy slept well; took wine and beef-tea; his tongue was entirely in his mouth.

14th. The incisions gaped a little; patient much improved in strength.

18th. Tongue quite natural; discharged cured.

Acute Idiopathic Glossitis affecting the Left Half of the Tongue; Result, Resolution.

Reported by Mr. (now Dr.) Nugent Wade, Purser-Student.

CASE 4.—J. C., aged thirty years, cab driver, was admitted into the City of Dublin Hospital, September 5th, 1865, under the care of Mr. Croly, suffering from inflammation of the tongue.

Previous History.—Has always been healthy and temperate; was not exposed to wet or cold before the present attack; never took mercury. About a fortnight before admission to hospital he felt a stinging pain under his left eye; three days subsequently he noticed a swelling under his left jaw-bone (near the angle); he slept badly; his tongue became swollen and painful at the left side; the swelling increased rapidly in one night, and prevented him taking any breakfast on the following morning.

State on admission to hospital.—Left half of tongue very much swollen, protruded from mouth, and indented on left side by the teeth; anterior surface of the organ covered with white tenacious mucus; left submaxillary gland considerably enlarged, very hard and extremely painful to the touch; saliva flows freely from the mouth; deglutition, articulation, and respiration impaired; pulse full and frequent; fœtid breath; teeth loose at left side. Mr. Croly ordered four leeches to be applied to the inflamed submaxillary gland; hot poultices were kept constantly on, and a gargle of alum and chlorate of potash was prescribed to be used frequently; a purgative was also

administered. The leeches bled copiously, and required matico leaves to arrest the hæmorrhage. The tongue regained its normal appearance, and the patient in a few days was discharged cured.

Acute Idiopathic Glossitis involving the entire Organ, but more marked at the right side, ending in Resolution.

I am indebted to Dr. Nugent Wade for the notes of this case also:—

CASE 5.—Christopher Pallas, aged fifteen years, a strong, healthy-looking boy, by occupation a messenger, was admitted into the City of Dublin Hospital on Thursday, September 7th, 1865, under the care of Mr. Croly, suffering from inflammation of the tongue.

This boy says he caught cold by sleeping out all night on a car (about a week before his admission to hospital); on the morning following he felt his throat very sore; four days subsequently he suffered from severe pain in both ears (worse in the right ear than left); his tongue became painful and swollen, and he swallowed with difficulty; on admission his tongue filled the cavity of the mouth completely; it projected slightly, and was covered with a white fur. The right half is more enlarged than the left; fætid saliva dribbles from the mouth; submaxillary gland hard and painful to the touch; the patient can with difficulty swallow even fluids; articulation imperfect; speech thick.

Mr. Croly made two parallel incisions in the tongue, one at either side of the raphe. A large quantity of blood, pus, and serum escaped. The patient was directed to wash his mouth with tepid water; all hæmorrhage ceased very soon; a purgative was administered, and an antimonial mixture to subdue the inflammatory symptoms.

The patient was discharged cured in a few days.

Acute Idiopathic Glossitis, followed by Abscess under the Angle of the Jaw.

CASE 6.—M. B., a servant maid, was admitted under my care in the City of Dublin Hospital on the 1st of May, 1865, suffering from acute inflammation of the tongue and sublingual glands. She was sent in to me by Dr. Chapman, Medical Officer to the Dounybrook Dispensary District.

History.—She caught cold from wet feet; had shivering fits; felt soreness under her tongue; her voice soon became affected, and the tongue swollen.

The catamenia were irregular of late, and she states that at the period she ought to menstruate her tongue swells; deglutition caused much annoyance, and she became hot and sick. On admission her tongue was observed to be swollen, and her expression was indicative of the disease; but the mucous covering of the sublingual region seemed to be more affected than the substance of the tongue itself; her voice was indistinct and speech thick; she could not bear pressure on the tongue or under the chin.

I made punctures with a sharp-pointed bistoury at each side of the frænum linguae, and also incised the tongue at each side of the raphe; the hæmorrhage was free, and the patient felt instantaneous relief; a purgative was prescribed, and hot poultices beneath the chin; she was also directed to clean her mouth; warm bath. She remained three weeks in hospital, and was then discharged well. The tongue was restored to its natural size. After her discharge from hospital she got inflammation in the left angle of the jaw; five leeches were applied; an abscess formed subsequently in that region, and was opened by Dr. Chapman.

Inflammation of the Tongue from Erysipelas, ending in Resolution.

CASE 7.—H. S., aged sixty-eight years, was admitted into the City of Dublin

Hospital on the 3rd of November, 1856, with a large epulis involving almost the entire right half of the lower jaw. On the 6th of November I removed the half of the maxilla from the articulation. On the 13th instant the patient was attacked with a mild form of erysipelas of the face. On the 15th instant he complained of his tongue being sore; the organ swelled rapidly, and at my night visit was enormously enlarged and protruded through the wound; dyspnœa was urgent, and swallowing very difficult. I made free incisions on the anterior surface of the tongue, at the right side of the raphe (the left side was not much infiltrated and did not require incisions). The relief was almost immediate.

ART. 141.—*On a Case of Aerial Goître.*

By Dr. GAYET.

(*Mémoires de la Société des Sciences Médicales de Lyon.*)

In October, 1867, a man, whose occupation was that of a joiner, came under the care of Dr. Gayet for chronic irido-capsulitis. Whilst he was under treatment Dr. Gayet noticed by chance that there existed at the lower part of the front of the neck a swelling, which from its nature was remarkable and worthy of attention.

The patient first noticed that there was a tumour in the neck nine months before; it was then seated in its present locality; was at first very small, and then gradually increased until it presented itself as a marked deformity.

Dr. Gayet states, that at the first glance the swelling might have been taken for a median cystic goitre, but a short examination prevented such an opinion from being held for any length of time. The tumour appeared to be influenced, up to a certain point, by the state of tension of the sterno-mastoid muscles, under the inner margins of which it passed. Whilst the muscle was in action, the tumour became prominent, hard, and elongated from below upwards; in relaxation of the muscle, on the other hand, it became soft and diminished in size. It was also influenced very much by the respiratory movements; it was swollen and distended by violent and prolonged respiration, and during a deep inspiration it seemed to disappear. To the touch the swelling felt very soft, and it was almost entirely reducible, but the finger could still make out under the skin the existence of a sac with moderately thick walls.

These characters alone, states Dr. Gayet, pointed out the nature of the swelling, and it was, without doubt, one of those formations described by Frank, Bach, and others, under the names of aerial goitre, tracheocele, &c., a tumour formed of a sac, communicating with the trachea by an orifice more or less extensive, and which, according to the state of tension of the respiratory passages, was empty, or again distended with air.

Two questions in cases of this kind naturally present themselves. What parts form the wall of the cyst? At what part of the trachea does the communication exist?

Dr. Gayet thinks that from the thinness of the walls of the cyst in his case, no part of the thyroid gland could have been involved; there

was nothing to authorize the supposition that in puncturing the cyst in the middle line, any other tissues save skin and fascia would have been traversed by the instrument. The isthmus of the thyroid gland was, Dr. Gayet thought, either above or below the pedicle which passed from the swelling to the trachea.

With regard to the second question, the true position of the communicating orifice was probably below the cricoid cartilage. Dr. Gayet could not feel it, but it was by careful pressure on the sac at this point alone, after the goitre had been reduced, that the reappearance of the swelling would for a time be prevented, even with very forcible efforts on the part of the patient.

In this case, as in all others previously observed, the tumour was not sonorous on percussion, and no special bruit could be heard by the stethoscope.

Nothing was learnt from this case that could throw any light upon the mode of origin of such formations.

Three statements on this point have been put forward, but they have been derived more from hypothesis than from observation.

1. Laceration of the mucous membrane, followed by quick expulsion of air into the cellular tissue of the neck. This would produce emphysema rather than a true tracheocele.
2. Laceration of the mucous membrane, followed only by a succession of limited expulsions of air, thus permitting the gradual formation of a sac.
3. Hernia of the tracheal mucous membrane between two of the cartilaginous rings, whence the formation of a cavity having the inner surface of its walls supplied with epithelium.

No post-mortem examination has yet been made in a case of this kind.

It is an important fact, that this form of goitre is generally produced under the influence of repeated and sustained bodily exertions. Heavy occupations and singing expose individuals to the affection. According to Larry it has been observed in those Mussulmans who from the summits of the minarets call out the hours.

Surgical interference would be worse than the disease. The most the surgeon can do is to recommend an apparatus designed so as to enclose the swelling, and to prevent further expansion of the cyst.

ART. 142.—*Fatty Tumour of the Neck ; Operation.*

Under the care of Mr. HAYNES WALTON, Surgeon to St. Mary's Hospital, and to the Central London Ophthalmic Hospital.

(*The Medical Press and Circular*, January 23, 1867.)

The points of practical interest to surgeons in this case are two—the diagnosis and the manner of operating.

The tumour was situated at the side of the neck, just above the cla-

viele, between the mastoid muscle and the trapezius. It was large enough readily to attract notice.

The patient was twenty-five years old. The history merely told that a couple of years ago a swelling was noticed in the neck, and about the same time hard lumps appeared under the arm on that side. The tumour grew, while the lumps disappeared.

There had been difficulty in diagnosis, for the woman had been to two public institutions, and at both it was supposed that the tumour was made up only of enlarged cervical glands. Mr. Haynes Walton decided otherwise. He considered it to be a fatty tumour, and determined to remove it.

When the patient was brought to the operating theatre, Mr. Walton drew the attention of the spectators to the physical characters of the disease, and said:—"This is a case in which I can well understand that there might be a difference of opinion as to what the tumour was made up of. From a hasty examination, no doubt most persons would suppose that they were touching merely lymphatic glands, and most certainly I should come to the same conclusion if I were to examine only a part of the mass. But, after I have scrutinized every portion of it, felt its general looseness, ascertained that the lumps are softer than glands would be, and taken into consideration that the tumour is increasing from below upwards, I say that it is fatty." Mr. Walton ascertained the exact position of the jugular vein so as to avoid wounding it, made an incision in the long axis of the tumour, and cut through the skin. His diagnosis was accurate. Out gushed a lobule of loose yellow fat, a part of a true fatty tumour or lipoma. As he was dissecting in a very dangerous region he proceeded slowly, and laid open the capsule of the tumour to its entire extent.

As the capsule was adherent, dissection was required over the whole surface. None of it could be torn away, as may commonly be done. During the last stroke or two of the knife, two arteries were divided, and quickly secured by ligatures.

These remarks were made after the operation:—"Of course, gentlemen, I am gratified in being able to verify my diagnosis. I proceeded very slowly at first until I was able to ascertain the character of the tumour, because had I not seen fat I should have desisted, but as soon as the yellow lobule shot out, I went on quicker and with more confidence. Because everything has gone on smoothly to-day, you must not suppose that the operation was a very easy one, or that it was unattended with risk. I was dissecting deeply among very intricate parts, surrounded by vessels of large magnitude and of importance, for the ramifications of the tumour were many and deep. I wish to tell you the secret of my success, for if you know this you may act as well as I have done, but if you are ignorant of it you may get into great difficulty in attempting a like thing. I so conducted my dissection that every stroke of the knife told against the tumour; in fact, the edge of the instrument was always toward its axis, and not away from it, so that I never divided anything I did not see, and I could not divide anything that did not come into the tumour or go out of it, so that if I had had blood-vessels in the closest proximity to the tumour, so long as they did not penetrate it, they were safe. If the point of the instrument had

been once away from the surface of the tumour and out of sight, I might have divided anything. You saw that two small vessels were divided at the very last stroke of my knife. These were the proper vessels of the tumour—the vessels of nutrition—and as they were cut superficially they were very quickly secured by the forceps. By following this important rule, I have removed a large tumour from among intricate relations, without ever seeing any muscular tissue, or dividing any blood-vessels unconnected with the morbid growth.”

The wound was brought together by sutures, and a week after the operation, it was nearly quite healed.

ART. 143.—*Iridectomy in France.*

(*The Lancet*, June 1, 1867.)

M. Fano has published in *L'Union Médicale* a series of cases of glaucoma (April 11th and May 9th, 1867), and concludes therefrom:—
1. That the excision of a fragment of the iris cannot be looked upon as a measure calculated to effect a cure of chronic glaucoma. The operation is a mere palliative, and does not lead to a radical cure. 2. That iridectomy retards the progress of the disease when the latter is not far advanced. 3. That favourable results are to be expected when the disease is not of old standing. 4. And that, although iridectomy only acts as a palliative, the operation may be had recourse to, in the absence of any other means of restoring or improving sight, when the eye is affected with glaucoma.

ART. 144.—*Large Cyst of the Thyroid Gland successfully Treated by Injections of Iodine.*

Under the care of Mr. SAVORY.

(*Medical Times and Gazette*, February 23, 1867.)

Cysts in the substance of the thyroid gland occasionally grow to a very great size. In this case they were so large as to increase the girth of the neck from about fourteen to eighteen and a half inches. The common methods for the radical cure of such cysts are, (1) the injection of iodine into their cavity, (2) the introduction of a seton, and (3) the laying them freely open, so that they may be obliterated by contraction and granulation. The idea of dissecting them out cannot be entertained. The injection of iodine into their interior is probably the most certain and least dangerous plan. It answers very well in cases in which the cysts are of comparatively small size. But there is preserved in the museum of St. Bartholomew's Hospital (s. xxii. 16) a large cyst of the thyroid gland, which, during treatment by iodine injections, became intensely inflamed, and burst into the pharynx immediately above the

orifice of the larynx. Death was caused by the escape of its contents into the trachea. Mr. Coote, in Holmes's "System of Surgery," vol. iv. p. 707, says:—"I have succeeded in producing the complete obliteration of a thyroid cyst by means of the injection of iodine in the usual proportions of one drachm of the tincture to five of water. But whoever undertakes such an operation should bear in mind the numerous complications that await him, as well as the fact that in some instances the hæmorrhage has been so severe as to demand the application of a ligature to the common carotid." Mr. Paget lately mentioned the following case:—A lady, who had an enormous cystic goître, thinking the door of a room into which she had occasion to go was open, walked on in the dark, and struck the projecting front of her neck violently against the flat panel of the door, which proved to be shut. She was much alarmed at the accident, but was well enough to go out to dinner on the same evening. She went to bed conscious only of having bruised herself severely. On waking the next morning she was very much surprised to find that the swelling in her neck had almost wholly disappeared, so that the skin was left loose and hanging in folds over her sternum. It was evident that the sudden blow had ruptured the cyst, and that the serous contents had been extravasated into the cellular tissue of the neck. Some time afterwards no return of the swelling had taken place, and she considered herself thus accidentally cured. Another patient that Mr. Paget knew of, and who had a large cyst in his thyroid, was cured for some time, if not permanently (of this Mr. Paget could not speak certainly), by the hug of a garotter. It is to be regretted that one so exceptionally favoured has not had the gratitude to come forward and acknowledge his obligations to one of a class who are universally reviled.

H. L., aged twenty, from Northamptonshire, was admitted into Lucas Ward, under the care of Mr. Savory, on October 20, with great enlargement of the thyroid gland. She said that this had begun eleven years ago, and that it was at first confined to the right side of the neck. From that time it had gradually and painlessly increased. It had been variouly treated with the external application of iodine and some medicines internally. On examination, it was seen that the neck was very much enlarged by two cysts, one in either lobe of the thyroid gland, and separated by a deep sulcus corresponding with the isthmus. It was impossible at this time to say whether there was any solid enlargement of the gland. A few days after her admission the cyst on the left side (the smaller) was tapped, and, after it had been entirely emptied by the removal of a quantity of serum of the colour of dark brown sherry, was injected with a mixture of one part of tincture of iodine and two parts of water. The injection was allowed to remain. This proceeding was followed by some, but an inconsiderable, heat of skin and acceleration of the pulse, and by tenderness over the cyst; but there was no shivering or other formidable symptom. The cyst partially refilled, and then gradually subsided till scarcely a trace of it could be felt. A few days later the cyst in the right lobe was tapped, and injected with three drachms of a mixture of equal parts of tincture of iodine and water. On emptying it, however, previous to the injection, it was discovered that there was a considerable solid enlargement of the gland beneath. No constitutional disturbance followed the injection; but in a few days

the cyst had refilled. It was therefore again tapped, and injected with a similar solution. Its cavity now suppurated, and was opened after the fashion of an ordinary abscess, into which, indeed, it had been converted. The abscess cavity by degrees contracted, and the patient was at length discharged, with her cysts, to all appearance, obliterated. The solid enlargement of the right lobe of the gland, which, however, constituted but a very small proportion of the original swelling, still remained; and for this she was to be an out-patient.

ART. 145.—*Case of Diphtheria saved by Tracheotomy.*

By GEORGE BUCHANAN, A.M., M.D., Glasgow.

(*British Medical Journal*, March 2, 1867.)

The following case is a good illustration of the advantages of tracheotomy as a means of saving life in diphtheria:—

“Catherine Walker, aged seven years, began to complain of hoarseness, with a slight but rough cough, on Wednesday, January 9th, 1867. These symptoms increased in severity till Friday, the 11th, when Dr. Tindal was called, who prescribed a blister to the throat, and administered two grains of iodide of potassium and two grains of chloride of potash every two hours. He found a white patch of diphtheric deposit on each tonsil. In two days the symptoms were relieved, a bit of false membrane thrown off, and the tonsils had a more natural appearance. On the 16th, a fresh accession of the disease seems to have occurred, for the breathing became oppressed; and though there was no appearance of deposit on the tonsil, it was evident that effusion was taking place in the larynx, as the stridulous noise on inspiration was quite evident. The same remedies were pushed for two days without effect; for, on the morning of Friday, the 18th, the distress in breathing was great.

“I was called by Dr. Tindal on that day, and found the child evidently in great danger. The stridor on inspiration was extreme; and the obstruction in the larynx most evident, by the drawing in of the abdominal walls and intercostal spaces at each act of breathing. The pulse was weak and rapid, and the skin already cold and pale. I was quite satisfied that death was imminent, if tracheotomy did not afford a chance of safety. Having got the parents’ advice, I operated; the patient being put under the influence of chloroform, which is a great relief both to the surgeon and patient. As soon as the trachea was opened, the violent respiratory efforts threw out some shreds of false membrane, and with the dressing-forceps I pulled away much more; some of the pieces being half a square inch in size. Fortunately, most of the effused membrane was situated above the opening in the trachea. As soon as the double tube was lodged in the trachea, the breathing became free, the colour was restored to the lips and cheeks, and soon the pulse and heat became natural.

“Dr. Tindal and I continued to visit the little patient daily; but

during the first three days she was indebted for safety and comfort to the continuous attendance of a number of my senior students, who kindly volunteered their services; so that at no time during day or night was she without a skilled assistant at her bedside. It is a most important part of the after-treatment to keep the tube clear of any secretion which may be coughed up into it. Fortunately, the disease seemed to be checked; for the secretion, instead of becoming viscid, assumed a more fluid consistence, so that it could be readily removed with a feather. The iodide of potassium was continued for two days. The patient was nourished with beef-tea, and after the second day with more solid food. Steam was introduced within the bed-curtains by a tube attached to the spout of a kettle which was kept boiling on the fire; and it was noticed that, when any slight difficulty of breathing through the tube occurred, an increase in the amount of steam soon relieved it. The tube was removed on the fourth day; when the respiration was found to be quite free, all symptoms of the disease having passed off. She continued to improve daily after the removal of the tube, breathing, eating, and sleeping in a natural way."

ART. 146.—*A Case of Traumatic Aneurism of the Left Vertebral Artery.*

By M. A. LUCKE.

(*Archiv für Klinische Chirurgie*, 8 Bd. i. 4.)

The patient was a young man, aged twenty-three years, who during convalescence from small-pox was stabbed by a knife over the left mastoid process. The bleeding was arrested by compression and the application of amadou, and the wound soon healed. About three weeks after the accident, the man noticed behind his ear a small pulsating tumour, which was situated below the cicatrix, and increased gradually in size. About the same time he was disturbed by buzzing in the ears, and giddiness.

He was admitted under Lucke's care on July 27th, 1865, seven weeks after the accident. On examination, there was found behind the left ear an hemispherical tumour of the size of the fist; the skin over it was unaltered, except at its central part, where there existed a thin fibrous cicatrix. The tumour presented manifest pulsations. By exploring the tumour, it was made out that it extended deeply into the space between the mastoid and styloid processes, and stretched in the other direction to the right half of the occipital bone.

The pulsations, the *bruit de souffle*, the fluctuation at the level of the cicatrix, left no room for doubt as to the nature of the tumour. It was clearly an aneurism. It remained to discover what was the artery involved. The seat of the cicatrix directed the surgeon's thoughts to an aneurism of the occipital, or of the posterior auricular arteries. On the other hand, as neither the direction of the original wound, nor the form of the instrument, could be learnt, it might be diagnosed as an

aneurism either of the vertebral artery or of the external carotid. The tumour was diminished in size by compressing the left common carotid, and its pulsations were very much reduced, although not entirely. That the greater part of the blood was supplied to the tumour by the carotid, seemed a rational conclusion. As continued pressure did not lessen materially the size of the swelling, the hope of treating it by this means was abandoned.

On August 4th, the left common carotid artery was tied; but the operation had not the smallest influence, either upon the pulsations or upon the size of the tumour. It was concluded from this result that the swelling was not in connexion with the carotid artery, but with the vertebral. The ulterior symptoms confirmed this diagnosis; the aneurism soon increased in size. The complementary circulation established by the vertebral artery after ligature of the carotid, seemed to increase the activity of the growth of the tumour. On the third day after the operation the cicatrix became very thin, and rupture was imminent. Treatment by injection of perchloride of iron was then resorted to. On August 7th, seven drops were injected. An hour later, it was evident, from the density of the tumour, that a coagulum had formed. Five drops of a solution of perchloride of iron were then injected once or twice every day. The walls of the tumour were thickened, the pulsations became more feeble, but on the fifth day, the skin about the cicatrix sloughed. The ligature came away from the carotid artery on the eleventh day after the operation.

On August 17th, whilst dressing was being applied to the tumour, the slough separated, and free hæmorrhage followed, but this was arrested by direct compression with charpie saturated with perchloride of iron.

M. Lucke next decided upon opening the sac. The operation was a very difficult one, incision of the tumour was followed by a considerable amount of hæmorrhage; the orifice of the aneurism could not be found, the finger, when introduced into the pouch, could be moved in a cavity situated between the atlas and the occipital bone, which was carious; the vertebral could not under these circumstances be tied, the hæmorrhage was with great difficulty arrested by plugging the sac with charpie saturated with perchloride of iron, and then bringing together the margins of the wound with a suture.

After the operation, the patient remained unconscious for nearly half an hour; he was in a condition of extreme anæmia, and was not able to speak; but he gradually regained strength, and on the following day could utter some words. On the 22nd, however, paralysis, both of motion and of sensation, attacked the right side of the body. On the 23rd, the plug was removed from the wound; the aneurismal cavity was found to be already diminished in extent, its walls were covered with granulations, and suppuration had been established. On the evening of the 28th, the patient became comatose, and died on the following night.

At the post-mortem examination it was discovered that the left vertebral artery had been cut between the atlas and the occipital bone. The openings of the artery could not be found; it could be followed as far as the axis, but there it was lost in a mass of connec-

tive tissue. The dura-mater was much thickened at the part which corresponded to the wound, and the pia-mater adhered to the cord, in the cord itself no alteration was found. The distal end of the artery was obliterated along a short portion of its course; the arteries at the base of the brain were in other respects healthy. On the surface of the left cerebral hemisphere, the pia-mater was, over a portion of its extent, thickened and adherent to the brain. The cerebral surface from the 2nd to the 5th convolutions on the left side was of greyish yellow colour, anæmic and softened; this softening did not extend beyond the connective tissue of the convolutions involved. The brain was anæmic, but in all other respects had a normal appearance.

Among the peculiarities of this case, M. Lucke dwells upon the difficulties of the diagnosis; it is hard to conceive of a knife being able to pass between the atlas and the occipital bone, and failing to penetrate into the cord. But what contributed particularly to the obscurity of the diagnosis, was the fact that the size of the sac was diminished by pressure upon the carotid artery; it is probable that the vertebral artery was pressed upon at the same time.

M. Lucke states that ligature of the vertebral artery seemed in this case to be an almost impracticable operation, not only on account of the difficulties attending its performance, but of the numerous anastomoses of the vertebral artery, which were developed after the carotid had been tied.

In conclusion, a very important point in this case, is the connexion of hemiplegia with changes in the cortical substance of the brain, and with disturbance of cerebral nutrition following ligature of the common carotid, and arrest of the circulation in the vertebral artery. It remains doubtful whether the softening was caused by the anæmia alone or by arterial obstruction.

ART. 147.—*On the present Methods of Diagnosis in Aural Surgery.*

By J. HINTON, Aural Surgeon to Guy's Hospital.

(*Medical Press and Circular*, May 15, 1867.)

In this paper, which was read before the Hunterian Society, the author first referred to the relations existing between diseases of the ear and other general or local morbid conditions. Respecting these, he remarked that his experience had led him to believe that such relations were remarkably few, diseases of the ear being, in this respect, strikingly unlike those of the eye. Scrofula, gout, and, in a less marked degree, rheumatism, acquired and hereditary syphilis, were enumerated as general causes of ear disease; eczema and psoriasis affected the tympanum, sometimes through the meatus externus. But he had not hitherto discovered any connexion between affections of the nervous system of the ear and degenerative changes of the kidney, and other internal organs. There is, however, a peculiar diathesis, with

which what we must be still content (or discontent) to call "nervous deafness" co-exists; this is indicated by a peculiar aspect of the countenance, and often by a certain smoothness of the skin. The health may be in all ascertainable respects perfect.

In respect to the means of diagnosis, the author described the means of examining the meatus and membrane, giving the preference to the simple reflection of the daylight by a concave mirror, and the use of the small conical silver or vulcanite speculum. Among the tests for the hearing, special importance was attached to the use of the tuning-fork, and some important modes of employing it were referred to. It does not, when placed upon the head, by itself afford a sufficient test of the sensibility of the nerve, since conditions of the tympanum have a great influence on the degree to which it is heard. If, however, it be heard worse on the deaf side, presumably the nerve is implicated; if the disease be tympanic only, the tuning-fork is better heard, very often at least, if not invariably. The reason of this latter fact is that if vibrations existing in the bones of the head are prevented from escaping through the meatus, they are reflected on the labyrinth and heard more loudly. Thus, if while a tuning-fork vibrates on the head, the meatus be closed, the sound is intensified, and the same result ensues when it is virtually closed by obstruction to the passage of vibrations through the tympanum. Or, if again this intensification of the sound, on closing the meatus be absent, obstructive disease in the tympanum may, with certain qualifications, be inferred. Further still, if a *diminution* of the sound be thus produced, it affords, in the author's opinion, the strongest presumption that the labyrinth is the seat of disease; and especially, that there is a condition of excessive tension, a state analogous to glaucoma of the eye. In many of the instances of "nervous deafness" above referred to, this inverted reaction on closing the meatus exists. By means of a double otoscope also, the relative freedom of the passage of vibrations through the tympanum on each side may be directly tested.

Lastly, the effects of removing the atmospheric pressure from the meatus, by means of the "pneumatic speculum," and those of passing air into the tympanum, were briefly described.

ART. 148.—*Enlarged Scrofulous Glands Displacing the Aorta and Innominate Arteries.*

Under the care of Mr. POLLOCK.

(*Medical Press and Circular*, May 22, 1867.)

The following case is reported by Mr. E. C. Ring, Surgical Registrar of St. George's Hospital:—

Wm. J., aged 18, was admitted on October 8th, 1866, with a large mass of scrofulous glands in the neck. He stated that it made its first appearance fifteen months previously as a small lump near the larynx. There was a large lobular mass of glands in the left side of the neck,

extending upwards as far as the mastoid portion of the temporal bone, backwards to the edge of the trapezius, and forwards to the lobe of the ear, and angle of the lower jaw. From this it extended downwards to within an inch of the tendinous origin of the sterno-mastoid, overlapping the muscle above, but lying behind it below. It extended deeply into the neck, pushed the pharynx and œsophagus forwards, and the trachea to the right. Its lower border was irregular, and ran from the margin of the trapezius, about three inches from the mastoid bone, obliquely downwards and forwards, to terminate at the tendon of the sterno-mastoid. The boy was pale and thin; he was ordered syrup of the iodide of iron, and cod-liver oil twice a day, with ordinary diet, and a pint of porter; and the surface of the neck was to be touched with the actual cautery, in the form of a small button of iron, while hot, and to be repeated three times a-week. He had a slight feverish attack on the 19th, and the application of the hot iron was discontinued. The attack subsided in a few days, and the cautery was resumed. The mass now began to diminish slightly in size, but the glands on the opposite side of the neck began to enlarge, and cough and shortness of breath came on. All active treatment was therefore discontinued, and on the 28th he was transferred to the physician for hæmoptysis and other chest symptoms, under which he gradually sank, and died on the 10th of February, 1867.

Mr. T. P. Pick, Curator of the Museum, has furnished the notes of the post-mortem examination:—

Externally.—The body was emaciated; the legs were œdematous; there was a large lobulated swelling on the left side of the neck.

Thorax.—There was a quantity of fluid in the left pleural cavity, and the lung on this side was compressed and destitute of air; the right lung was œdematous and full of frothy fluid. The pericardium contained a little fluid. The left side of the heart was open; the right contracted; the valves and structure were healthy.

Abdomen.—The liver was slightly lardaceous; the acini well marked, and semi-transparent; the spleen was natural; the kidneys were large, smooth, and mottled; no amyloid reaction.

Neck.—The swelling in the neck was due to tubercular infiltration of the cervical glands; these glands extended in every direction upwards to the occiput, backwards to the spinous processes; inwards between the pharynx and vertebræ to the right side, and downwards into the thorax; in this latter situation they had pushed the aorta over to the left side, so that the innominate artery was elongated, and crossed the trachea just at the point where tracheotomy is performed. The pneumogastric and laryngeal nerves were compressed and flattened.

ART. 149.—*On the Gravelly or Calcareous Cysts of the Eyebrows.*

By Drs. J. and A. SICHEL.

(*Gazette des Hôpitaux*, No. 56, 1867.)

The following practical observations on cysts of the eyebrows, form

part of a work about to be edited by MM. J. and A. Sichel.—(*Traité complet, théorique et pratique, des maladies des yeux*).

"Cysts of the eyebrows are classed among the rare affections; the most recent treatises of ophthalmology have almost quite passed them over in silence, and no mention has been made of the especial rarity of the gravelly or calcareous cyst of the brow.

"Having observed a number of these growths, and one of us having had occasion to extirpate a cyst of this kind, we publish this case with some remarks, to which we intend to add, at a later period, an article upon the simple cysts and their actions.

"The gravelly cysts of the eyebrows, or rather of the supraciliary region (for they are generally situated a little below the brow under the derma), are small tumours of an osseous or stony hardness, from four millimetres to a centimetre and a half in diameter, generally more or less quadrangular, and always very flat. Though moveable under the skin, they cannot be displaced in every direction, nor to any great extent, since the posterior surface is nearly always adherent at some one point, generally at its centre. For this reason it is necessary, in operating for their removal, always to make the skin incision of a somewhat greater length than the dimensions of the tumour might at first sight seem to require; for unless this is done the dissection of the posterior surface of the cyst and its removal will be tedious both for the operator and the patient, for the operation is neither so serious nor so painful as to demand a recourse to anæsthesia."

Case reported by Dr. J. Sichel, sen.—"Mlle. M., of a lymphatic and nervous habit, though otherwise healthy, has had, since her infancy, a gravelly or stony cyst of the right supraciliary region. This indolent swelling, which in 1843, when the patient, aged seventeen years, came under my notice for the first time, was of the size and shape of a French bean, was placed transversely between the chief fold of the upper eyelid and the lower border of the outer third of the brow lying under the superior part of the lid, and could be partially pushed up under the skin of the supraciliary region. The removal of the tumour was proposed; but as the annoyance caused by it was not sufficient to allay any apprehension of an operation, my advice was not taken, and the treatment was for the next three years confined to the application of dissolvent lotions, the inefficacy of which I had predicted. In 1846 the tumour had increased but very little in size, but the superior half of its posterior surface had become adherent. As the deformity was disagreeable, and not concealed by the hairs of the eyebrow, the young woman and her parents requested me to remove it by operation. This was done on July 16th, 1846, with facility, as the patient was very courageous. A transverse incision was made, and the only difficulty was the dissection of the very firm adhesion of the upper part of the back of the tumour, which had to be performed with much care, for fear of injuring the periosteum. The tumour was sixteen millimetres in length, twelve in width, and three in thickness. It had no enveloping membrane, but was surrounded by cellular tissue even at its adherent part. Another similar swelling, though not so hard, and resembling an engorged gland or a fibrous cyst, was noticed in front of the left ear. The resulting cicatrix was linear, and scarcely visible.

Chemical and microscopical examination.—This was made in May, 1849, by M. Leconté, then demonstrator at the College of France. The following is his report :—

"The tumour, preserved during nearly three years, was dry, somewhat shrunken, and in two parts. The cyst was separated into two fragments, one the size of a small bean, the other that of a millet seed. It was of a yellowish colour, and its specific gravity was greater than that of water. It could not be cut without difficulty, and on section, it presented at certain points a horny appearance. When treated by diluted nitric acid, there was a slight effervescence. After a sufficient contact the liquid was divided into two parts, one to serve for the examination of the basis, the other for that of the acids.

"The first portion, when mixed with some hydrochlorate of ammonia neutralized by pure ammonia, and finally treated with the oxalate of this base, deposited a copious precipitate—indicative of lime. The filtered liquid was tried by phosphate of soda and ammonia, which produced a precipitate—indicative of magnesia. The tests applied for the detection of other bases gave only negative results.

"The second portion of the liquid being separated into two parts, and treated by chloride of barium and nitrate of silver, furnished no precipitate; hence sulphuric and hydrochloric acids were absent. Nitrate of silver, salts of magnesia, nitrate of uranium, chloride of iron, did not detect the presence of phosphoric acid in a third part of the liquid, from which the bases had been previously precipitated by means of sulphuric acid and alcohol.

"The solid residue not attacked by the nitric acid was well washed, and then placed under the microscope. It was observed to be made up of irregular cellular spaces. This residue, when calcined with dry potash, gave off ammonia.

"The cyst is therefore composed of carbonate of lime and carbonate of magnesia, deposited in the irregularly formed cells of an abundant organic and nitrogenous structure."

ART. 150.—*On the Adaptation of Artificial Palates.*

By GEORGE PARKINSON, M.R.C.S., Dental Surgeon to Charing Cross and West London Hospitals.

(*The Lancet*, January 12, 1867.)

There are three evils susceptible of remedy by artificial palates; first, defective enunciation; second, the escape of solids and fluids through the nasal passages; third, difficulty of swallowing. In a case of congenital fissure of the palate extending through the hard tissues and alveolar ridge, after having taken a correct model of the parts in wax or plaster of Paris, Mr. Parkinson commences by fitting a thin plate of gold over the vault of the palate, as far back as the posterior margin of the palate bone would have extended had the bony arch been perfect. To the posterior margin of this plate, by means of a hinge, is attached

a velum, constructed of hard, well-polished, vulcanised india-rubber, formed in such a manner as to fit the palatine surface of the remnants of the soft palate and allow them to glide over it in the act of deglutition. To keep the velum in its place, one end of a delicate gold spiral spring is made fast to it, the other end being fixed on the nasal surface of the gold plate representing the hard palate. This spring must be so adjusted as just to keep the india-rubber velum in contact with the soft parts, and allow the portions of uvula on either side to approximate in the act of deglutition. Each particular case may require some slight modification, but all that Mr. Parkinson has treated on this principle have been, he thinks, highly satisfactory. The voice is not always immediately improved, as education of the tongue is necessary in all congenital cases. The patients for whom Mr. Parkinson has constructed these palates have, without exception, experienced great comfort from their use, the only inconvenience ever complained of being a slight nausea on the instrument being first introduced, which generally passes off after a few minutes. The materials used are perfectly durable. The only part that could possibly get out of order is the spring; but this would only be the result of careless manipulation out of the mouth, and could easily be repaired at a trifling cost.

In constructing an artificial palate in cases where both bony and soft tissues have been lost by disease, Mr. Parkinson does not deem it necessary to have a hinge or spiral spring. He makes the vulcanite velum a fixture to the gold plate fitted to the anterior part of the mouth, or constructs the whole of gold or vulcanised india-rubber. In these cases the voice is immediately restored to its natural tone, and, the fluids not being permitted to escape through the nose in the act of drinking, the comfort of the patient is wonderfully enhanced. Mr. Parkinson does not think artificial palates can be adapted with advantage to children under twelve years of age, and that ordinarily sixteen is quite young enough; although he has, at the urgent desire of the parents, fitted them to patients of thirteen. In cases where the fauces are particularly irritable the bromide of potassium might be used with benefit; but never having had occasion to employ it, he cannot give an opinion as to effect.

ART. 151.—*Sympathetic Ophthalmia.*

By GEORGE LAWSON, F.R.C.S. Eng.

(*Injuries of the Eye, Orbit, and Eyelids.*)

The following case is recorded by Mr. Lawson:—

"S. H., aged twenty-five, came to the Ophthalmic Hospital, Moorfields, in December, 1862, to seek advice concerning the right eye, the sight of which he had lost nearly twenty years previously. The cornea was nebulous; a portion of the iris had evidently been removed for the purpose of making an artificial pupil, and some opaque capsule occupied the irregular pupillary space. The eye was soft, and as an organ of vision useless; it was liable to attacks of inflammation, which gave him

considerable annoyance. As the eye was then quiet there was no need for active interference; but the patient was strongly advised, if it again became troublesome, to come at once to the hospital and have it removed, as it was very possible it might act injuriously on the sound eye. On July 11, 1863, he again came to the hospital on account of the bad eye being inflamed and painful. Its removal was urged, but in vain; he was treated with belladonna fomentations and tonics, and all active mischief for the time ceased. His great objection to having the eye removed was, that as he was subject to epileptic fits, he did not like to wear an artificial eye. In November of the same year he was again suffering from a recurrence of the inflammation, but under the use of soothing applications the eye sufficiently recovered to enable him to cease his attendance at the hospital. On March 8th, 1864, he returned to the hospital with the right eye again inflamed, and he was strongly urged to part with it, but he positively declined to submit to the operation. On the 22nd of the same month the left eye began to show symptoms of sympathetic irritation. The whole globe had a pinkish appearance; there was a ciliary zone of redness around the cornea, and a decided dimness of vision. He was unable to define clearly, and it was with difficulty he could read No. 2 Jaeger's types: even then he refused to submit to the removal of the right eye. On March 25th the symptoms of sympathetic irritation in his left eye were much more manifest, and active deep-seated inflammation was present. The whole eye was very red, the aqueous serous, and the pupil fixed; he was now not only willing, but anxious, to part with the right eye. He was at once admitted into the hospital, and I removed the eye which had given him so much trouble. From the operation he made a good recovery; but the disease, which was now thoroughly established in the left eye, was not arrested; unhappily, it steadily progressed. On April 11th he was unable to count fingers, and since then he has become totally blind."

Mr. Lawson is of opinion that if the patient had submitted to the removal of the source of irritation at the commencement of the attack of sympathetic ophthalmia in the good eye, there would have been a much greater chance of his recovery; but the delay in his case unfortunately rendered the operation, though his only chance, too late for success.

In the treatment of sympathetic inflammation of the eye, Mr. Lawson says we must consider—1. How to arrest the progress; and 2. How to deal with an eye which remains damaged after the disease has been arrested. If the sympathetic inflammation of one eye is dependent on injury to the other, and it is clear that the wounded eye is a lost one, or if it arises from the irritation of the remains of an already lost eye becoming inflamed, then there cannot be a moment's hesitation about the propriety of at once removing the exciting cause of the disease, and extirpating the diseased or the injured eye.

Suppose the sympathetic irritation is due to a wound in the other eye, and that the injury has not been quite sufficient to destroy sight, how then should we act? In such a case Mr. Lawson says, if he saw the patient suffering with the one eye in the *early stage* of sympathetic ophthalmia, he would unhesitatingly sacrifice the injured eye with the hope of saving the other. As regards *general treatment*, absolute rest

to the eyes is imperatively demanded, and it is of the greatest importance that the patient should be kept for a long period in a very subdued light. In some cases Mr. Lawson has seen decided benefit from a moderate inunction of mercury, but quinine in one or two grain doses must be given at the same time.

Local Applications.—Belladonna in one form or another affords the most grateful application to the eyes. A solution of atropine, of the strength of one grain to the ounce, should be dropped into the eye three or four times a day. It has a double effect: it is a direct and very excellent sedative to the eye, allays irritability and relieves pain, and sometimes it seems to exert almost a specific action on the disease; but in addition to this it dilates the pupil, and so helps to destroy recent adhesions, and by maintaining the dilatation tends to prevent the formation of a closed and contracted pupil. The frequent use of a belladonna fomentation also gives great comfort.

Operative interference is prejudicial whilst the eye is actively inflamed.

If the disease has been stayed before the deeper parts of the eye have been seriously implicated, and a fair perception of light remains, much may be done to restore useful vision to the eye. In a severe, though not an extreme case, the pupil will be found closed and contracted; its margin, and probably also the greater part of the posterior surface of the iris, bound to the capsule of the lens, and the small pupillary space filled up with a dense false membrane; the iris has been altered in structure and become fibrous, and its elasticity has become destroyed. In such an eye an ordinary iridectomy would fail, partly because it would be difficult, if not impossible, to get away sufficient iris to form an opening large enough for an artificial pupil; and partly from the portion of lens, which would be exposed if an artificial pupil was successfully made, having its capsule coated with uvea, owing to the adhesions which had existed between it and the posterior surface of the iris. It is generally, therefore, advisable in such severe cases to get away the lens at the same time that the operation is performed for making the artificial pupil. In the milder forms of sympathetic ophthalmia, where the tissue of the iris has not been so much changed, and where the adhesions between it and the lens capsule have not been so complete, an iridectomy alone may be sufficient.

ART. 152.—*A Case of Hemiplegia dependent upon Polypi in the Ear.*

By Dr. SCHWARTZE.

(*Arch. f. Ohrenheilkund*, 1, pp. 147–151.)

The patient was a woman, aged thirty years. She had had polypi in her right ear for many years, and the meatus was completely filled with these growths. During an attack of acute bronchial catarrh, symptoms of severe otitis were presented, and at the same time the patient

noticed that sensation on the right side of the face, and afterwards that of the whole of the right side of the body, was impaired, and also that movements in the right extremities were impeded. Frequent attacks of vertigo and repeated vomiting complicated these symptoms. Two of the four polypi in the ear were removed, and an energetic antiphlogistic treatment was put in force, and in the course of six days the paresis and anæsthesia disappeared.

Observations.—The rapid occurrence, and the no less rapid disappearance, of the grave symptoms presented in this case were probably due to hyperæmia of the brain and of its membranes, resulting from acute inflammation of the tympanum which was excited by retention of pus.

It is well known that vertigo, unilateral cephalalgia, a sense of pressure in the head, are frequent symptoms in connexion with polypi of the ear, when these growths, by blocking up the external meatus, give rise to retention of pus in the tympanum, and thus produce abnormal pressure upon the contents of the bony labyrinth. But the symptoms of an abiding irritation of the vagus nerve, such as nausea and chronic vomiting, have been rarely observed. A case of hemiplegia caused by aural polypi has not hitherto been reported, although the same affection has frequently been observed in connexion with the presence of foreign bodies in the external passages of the ears.

(B) CONCERNING THE TRUNK.

ART. 153.—*Injections of Chloroform in the Treatment of Hydrocele.*

(*Medical Times and Gazette*, January 19, 1867.)

A few weeks ago, Dr. Senftleben, of Berlin, in a visit to the London Hospital, mentioned to Mr. Hutchinson that in Germany injections of chloroform had been used with great success in the treatment of hydrocele. A patient having been admitted with a large, thin-walled bursa in front of the patella and its ligament, which had resisted treatment by blisters, &c., it was determined to try this method of cure. The tumour was as large as an adult fist, but lengthened and flattened. It was not inflamed. Mr. Disney Thorp, the House-Surgeon in charge of the case, punctured the cyst with a hydrocele trocar, drew off the whole of the fluid, and then injected a drachm and a half of pure chloroform, which was left in. No particular pain was caused, but the bursa quickly refilled as large as before. It remained full for about a week, then absorption commenced, and in three days every trace of fluid and of swelling had vanished. It is intended to try the same plan in other cases.

ART. 154.—*Starch Injections in Urethritis.*

(*Recueil des Mémoires de Médecine et de Chirurgie Militaires* ; and *British Medical Journal*, March 23, 1867.)

M. Luc uses a tolerably thick solution of starch in acute urethritis, and, he says, with great success. It is, of course, simply prepared and easily used. To introduce it into the syringe, it is best to withdraw the piston first. "It never produces pain, and avoids strictures."

ART. 155.—*On a Case of Spasmodic Stricture of many years' duration.*

By CAMPBELL DE MORGAN, F.R.S., Surgeon to the Middlesex Hospital.

(*The Lancet*, April 13, 1867.)

The frequency and the duration of spasmodic stricture are still amongst the unsettled points of surgery. Some foreign surgeons deny altogether the existence of true spasmodic stricture. In England the doctrines of Hunter and Home have taken too deep root to permit of such scepticism. But we find that the extent to which spasm may be regarded as a cause of obstruction to the stream of urine is very differently estimated by those who fully recognise its existence. The following quotation from Mr. Henry Thompson's article on diseases of the urinary organs in the "*System of Surgery*," gives the opinion of a surgeon of great experience, and represents the views of perhaps the majority:—

"It is extremely rare that any considerable narrowing of the urethra takes place as the result of pure spasm of the muscles surrounding the passage. Granted, however, the presence of organic narrowing, or of inflammation in the canal, and an undue action of the urethral muscles may be excited, so as still further to narrow it. There is no doubt that a slight degree of this action may be excited in any part of the passage. . . . But it is important to remember that the distinguishing feature which marks the phenomena thus ascribed to irregular muscular contraction, and by which they are contrasted with those of organic stricture, is their transitory character."

In the correctness of the first part of this quotation most will agree, but I doubt whether the second can be received absolutely and without some reservation. Generally, no doubt, the state of spasmodic stricture is very variable, but it is not always so. One sees cases now and then, in which all the signs of a narrow stricture are present, which yield readily to the contact of a bougie, and return rapidly when its use is discontinued, but where, after death, the appearances of permanent stricture are too insignificant to account for the condition during life. Admitting that a trifling organic contraction is present, the symptoms must solely be attributed to a permanent spasmodic state of the urethra, or to

what comes practically to the same thing, a spasmodic contraction occurring whenever the patient endeavours to pass water.

The following case is, I think, a remarkable illustration of the possibility of the occurrence of true permanent spasmodic stricture. The patient—himself a surgeon—gives so circumstantial an account of his symptoms that no doubt can exist as to the fact that he had for years all the signs of permanent organic stricture; the result would show that he had probably never had organic stricture at all.

This gentleman, a surgeon-major in the army, is now fifty years of age. He first noticed the symptoms of stricture as long ago as 1847, after an attack of gonorrhœa, during which the spasmodic difficulty in passing water was so great, and the pain attending the effort so severe, that he always had recourse to the hot hip-bath. When the gonorrhœa had passed off he found that the stream of water was smaller and spiral, and that a few drops of urine always remained in the urethra. He tried himself to pass a bougie, but it seems always used a small one, and failed to reach the bladder. From this time the stream very gradually but steadily diminished, and passed irregularly, sometimes to one side, sometimes to another. He did not, however, care to have advice, as the complaint did not cause him much annoyance.

While on duty in Burmah in 1852 he noticed that there was a constantly recurring gleet discharge, and he had at this time a swelled testicle.

On returning to England in 1859 the stream was about the size of a crow-quill, and it took a considerable time to empty the bladder. He now began to suffer much inconvenience. Exposure, especially to night air, caused very frequent micturition, with pain in the lower part of the abdomen and loins. If he resisted the urgent desire to pass water great irritation of the rectum came on. From this time he was never free from these symptoms. The time taken in passing water became more and more protracted. The stream was sometimes thready, never larger than a crow-quill; sometimes the water has come in drops only. Lately he has suffered from pain in the perineum, muco-purulent discharge and irritation at the orifice of the urethra. The discomfort from pain, irritation, and frequent micturition became so great that he determined to undergo regular treatment. He placed himself under my care, fully prepared to undergo any operation, by splitting, or perineal section, so long as he could be quite cured.

The account he gave was so positive and circumstantial that I did not doubt for a moment that there must be some organic stricture. The perineum had a natural feel, but there was tenderness in the scrotal part of the urethra.

Instead of at first passing a full-sized instrument as I always do, I introduced a No. 6 catheter. On passing it through the scrotal region he complained of soreness, but there was no obstruction. At about the beginning of the membranous part the further passage was stopped. There was not any particular pain at this part, and the resistance was not firm. Smaller and smaller instruments were tried, but none would pass this point. Satisfied that there must be some spasmodic contraction, but at the same time believing that there was organic stricture, I ordered a large dose of bromide of potassium to be taken overnight,

and on the morning of my next visit I then found he had had a quieter night, but the instrument would not pass. A third attempt some days afterwards was made under the same circumstances and with the same result.

I found that there was always tenderness in the scrotal region; and, desirous of ascertaining whether the urethra was narrowed at this part, I now for the first time tried a full-sized catheter (No. 11). There was no obstruction, and I passed it down to the seat of stricture. On making a very slight pressure the obstruction gave way, and the instrument passed into the bladder without the slightest difficulty. The next time he passed water it came away in a full stream; after that it diminished a little, but there was no further difficulty. I passed a No. 11 for him without meeting with any obstruction two or three times afterwards, and sent him home perfectly well, with instructions to use a large catheter if ever he found a tendency to diminution of the stream.

There can be no doubt, I think, that we have here an instance of long-protracted spasmodic stricture, never disappearing, indeed scarcely varying, during some years. It cannot be imagined that an organic stricture of over ten years' standing would at once yield to the gentle pressure of a No. 11 catheter and give no further trouble, when it had resisted the attempts to pass smaller instruments. It is possible that the irritable point in the scrotal part of the urethra may have had to do with the more distant spasm. It is possible that, whatever the source of irritation, the bromide of potassium may have quieted it. This is, however, all conjectural; but there can be no doubt as to the spasmodic nature of the obstruction. The case may be exceptional in point of duration, but it is not the less instructive.

ART. 156.—*On the Seat of Urethral Stricture.*

By M. H. FOLLET.

(*Archives Générales de Médecine*, April, 1867; *Gazette Hebdomadaire*, April 12, 1867.)

A great majority of the authors upon stricture of the urethra have referred its usual seat to the junction of the bulb with the membranous portion of the canal; and though many surgeons have admitted contraction of the spongy portion of the urethra as a fact well attested, though of relatively rare occurrence, the classical seat of stricture, M. Follet states, still continues to be the bulbo-membranous region. M. Verneuil, in a communication to the Anatomical Society, has put forward on this subject a totally different opinion; he would reverse the proposition, and say that spontaneous blennorrhagic stricture rarely occurs at the membranous portion, but is found, in most instances, in the perineal part of the urethral canal. M. Follet publishes six cases of organic stricture, of which one alone occupied the bulbo-membranous region, all the others being seated in the spongy part; the author has also studied the influence of urethro-vesical spasm upon contractions of

the penile portion of the urethra. The following are the conclusions with which M. Follet sums up his interesting memoir:—

1. Spontaneous fibrous organic stricture frequently exists in the spongy portion of the urethra in its penile portion. It is often overlooked.

2. Organic strictures of the bulbo-membranous regions, though pronounced to be frequent, are rare.

3. In every case of penile stricture, a second obstruction exists at a distance of about thirteen centimetres from the meatus, at the commencement of the muscular part, and at the entrance to the neck of the bladder. It is this remote obstruction that has given rise, among observers who have frequently failed to recognise the penile stricture, to the classical opinion concerning the bulbo-membranous seat of stricture of the urethra.

4. The calibre of the penile stricture remains constant, or dilates but slowly and regularly; on the other hand, the most rapid and capricious changes may be observed in the diameter of the deep-seated obstruction; if easily traversed in the morning, it may towards the evening become, under the influence of some irritation, altogether impassable.

5. This second obstruction is due to muscular spasm; the penile stricture of which it is symptomatic is often wide, and does not by itself impede micturition to any great extent. It is the secondary spasm that causes the dysuria, and constitutes a serious and sometimes insuperable obstacle to the passage of the catheter.

6. In those rare cases where the fibrous obstruction is seated at the bulb, the secondary spasmodic stricture is not absent, but exists directly behind the first. Here also the fibrous contraction often allows the passage of the point of the exploring instrument. It is always the spasm that closes the entrance into the bladder.

ART. 157.—*A Case of Orchitis following Catheterism. Suppuration and Elimination of the Tissue of the Testicle. Death from Peritonitis.*

By M. FOUCHER, Hôpital Saint-Louis.

(*Gazette des Hôpitaux*, March 21, 1867.)

A tinman, seventy-two years of age, was admitted into the hospital on the 1st of December, 1866, for retention of urine dependent upon an enlargement of the prostate. The patient was of a good constitution, but affected with a double reducible inguinal hernia. From the time of his admission the bladder was freely relieved by repeated catheterism. On December 15th slight pain was felt in the right testicle, which was followed by swelling of the gland and epididymis, and redness of the skin. Fomentations were applied, and the patient was kept to his bed; but up to the 1st of January, 1867, there had been very little change in the condition of things, except that the patient seemed to have become debilitated. On January 2nd an abscess about the size of a large filbert appeared on the outer surface of the glandular swelling;

this was opened, and exit given to some thick healthy pus, which came apparently from a deep-seated part of the testicle. The patient was not relieved by this proceeding; pus continued to be discharged from the orifice of the abscess; the spermatic cord now commenced to swell, and radiating pains were felt in the abdomen; slight tympanitis, constipation, and vomiting now came on, but these intestinal disturbances were relieved by an enema. On the 9th of January a mass of filamentous substance of a grayish colour, and looking like seminiferous tissue, was seen to project through the fistulous orifice of the abscess. After five or six days the tufts made up of seminiferous tubes became unravelled, and were carried away by the pus, and thus eliminated; at last there remained in the situation of the right testicle a lump of not more than half the size of the healthy organ of the left side. Whilst these changes were going on in the testicle, the cord became painful and swollen in its inguinal and scrotal portions, but without any change taking place in the colour of the integument. The abdomen became very tympanitic and painful, there was obstinate constipation, accompanied by frequent vomiting, the pulse became rapid, and on the evening of January 23rd the patient died.

Autopsy, January 25th.—Over the right testicle the coats of the scrotum were thickened, indurated and closely united together. Upon the outer surface of the gland was an opening about $1\frac{1}{2}$ centimetres in length, the lips of which were of a grayish colour. After the superficial structures had been carefully dissected away from the proper enclosing membrane, the testicle was found reduced to half the size of its fellow. The tunica albuginea was soft and weak throughout, and in it there was an opening corresponding in size and situation to that existing in the more superficial part. A mass of pale tissue, infiltrated with pus, and adherent to the surface of the cavity of the tunica albuginea, was evidently the remains of the septa of the testicle mixed with the debris of seminiferous tubes. In the cellular tissue connecting together the convolutions of the canal of the epididymis were scattered small yellowish concretions, some of them solid, others softened and transformed into pus. The spermatic cord was followed from the upper surface of the right testicle to the abdomen; it presented at intervals small purulent collections which had formed in the cellular tissue uniting its different elements. The largest and highest of these abscesses was seated in the middle part of the inguinal canal, and was here in contact with the bottom of the hernial sac; the neck of which was placed at the inner abdominal ring. This sac, though communicating with the peritoneal cavity, did not contain any intestine, but was filled with pus. In the abdomen were found all the lesions of an intensely acute peritonitis.

Remarks.—This case is of twofold interest; it supplies a novel example of suppurative orchitis with elimination of the seminiferous substance, the most serious result of inflammation of the testicle, and which was induced in this case by rapid weakening of the patient.

Before M. Targavay had by his laborious researches thrown fresh light upon this subject, hernia of the substance of the testicle had been confounded, and in England particularly, with fungus of the testicle. The granular appearance of the hernia of the glandular substance may doubtless favour the idea of its being a fungus; but care should be

taken to find out whether the tissue be filamentous and easily untwisted, for the existence of these characters, together with the colour of the mass, will leave no room for doubt.

The second point of interest is the occurrence of fatal peritonitis under conditions altogether unusual. Inflammation was developed first in the body of the testicle and in the epididymis, and involved the cord; it next attacked the hernial sac, and by this was transmitted to the whole of the peritoneal membrane.

ART. 158.—*On Prolapse of the Urethra in Children.*

By M. GUERSANT.

(*Bulletin de Thérapeutique*, October 15, 1866.)

M. Guersant has met with twelve or fifteen cases of prolapsed urethra in girls from two to twelve years of age, although this affection is scarcely mentioned in the literature of the diseases of the urinary passages. He attributes it to the following causes:—1. Repeated straining, as in the cough of pertussis and chronic bronchitis, and in the repeated and forced attempts at defecation consequent upon constipation. 2. General debility. Dr. Guersant has met with prolapse of the mucous membrane of the urethra in young girls during a long convalescence from acute disease, and during chronic affections. The infants do not suffer much from this affection; there is sometimes a frequent desire to micturate and scalding during the passage of urine. If the parts be examined, the vulva will be found redder than it usually is, and at the meatus urinarius will be observed a small rosy swelling, apparently proceeding from the interior of the canal, and the surface of which is formed of mucous membrane; at the centre of this little tumour there is an orifice through which a sound may be passed and carried into the bladder. This state of things may continue for a long time without producing any disturbance, but sometimes the swelling increases gradually, and gives off a sanguineous discharge which afterwards becomes purulent, its surface becomes irritated, and superficial sloughing may occur, with inflammation of the adjoining parts and vulvitis.

Prolapse of the mucous membrane of the urethra may be diagnosed from a urethral polypus by its forming a circular swelling with a depressed centre at the meatus, and by the absence of a pedicle.

In the treatment of this affection M. Guersant prefers incision to cauterisation or the ligature, as the growth is by this means removed promptly, and the child is sooner restored to its normal condition. He does not administer chloroform in this operation, except the little patient be timid or difficult to manage. The labia majora having been separated by an assistant, the prolapsed portion is drawn forwards either by a tenaculum or by a loop of thread, and then snipped off at one stroke by curved scissors. If there be much hæmorrhage, it may be arrested by the application of a solution of perchloride of iron, or by

pressing upon the womb for some seconds a small plug of agaris saturated with the styptic fluid. Frequent washing with cold water and the occasional application of the stick of nitrate of silver will suffice to produce cicatrisation. Micturition is painful for a few days after the operation, but this will not continue long.

In one case where the projection had been incised, and the subsequent hæmorrhage could not be arrested by the perchloride of iron, M. Guersant applied a bladder of ice over the hypogastric region and the front of the vulva for twenty-four hours; this plan was followed by success.

ART. 159.—*Case in which Persistent Priapism was caused by Extravasation of Blood into the Corpora Cavernosa of the Penis.*

Under the care of Mr. JOHN BIRKETT, of Guy's Hospital.

(*The Lancet*, February 16, 1867.)

Cases of persistent priapism are exceedingly rare. Many writers on the special diseases of the male genital organs do not even allude to the complaint, and in the records of English surgery there are only two instances.

T. V., a labourer in the country, forty-four years old, was admitted into Lazarus ward on the 14th January, 1865. He stated that he had been suffering from continued priapism for ten days. The only statement he made was, that after copulation the penis remained permanently erect. During the first week he felt passionate venereal desires, which subsided and have not recurred. The cavernous bodies seemed to be the chief seat of the lesion, for the glans penis and corpus spongiosum were not turgid. The man suffered great pain in the part, which was increased by the least attempt at pressure or depression of the organ. He appeared to be cachectic and much out of health, although he stated that he had not been at all so. There was not the slightest evidence of any disease in any other organ of his body, each of which was carefully examined, especially the brain.

A common embrocation was immediately applied, and two days after admission Mr. Birkett introduced a bistoury through the fibrous tissue of the penis into the cells of the corpora cavernosa in two places on each side. Dark, thick, blood-like fluid flowed, resembling that which escapes from a large blood swelling when punctured.

Jan. 18th.—The penis rather œdematous, especially the glans; pain in the part less; priapism scarcely altered.

20th.—On the right side the swelling was more than on the left, and there was a distinct sensation of fluctuation. An incision was made, but only the same kind of bloody fluid as before escaped, with a trace of pus. Warmth and moisture were applied by means of wet lint and gutta-percha.

23rd.—More punctures were made on both sides, as the man bitterly

complained of pain, and the penis had not diminished in size. Warmth and moisture continued.

27th.—Bloody fluid and a little pus escaped from the punctures; less pain in, and diminished rigidity of, the penis. Complaints of pain in the perineum. During the whole of the time to which this report refers he passed urine without any difficulty, and with only slight pain.

Feb. 4th.—Not so much pain; the erection is less, the corpora cavernosa being no longer rigid and hard, although there remains an oedematous state of the glans. Pressure by means of strips of soap plaster employed. There has been very slight constitutional disturbance. During the early part of this month the man progressed favourably, and was able to leave his bed and walk about; but towards the end of it suppuration took place in the left corpus cavernosum. An incision was made into it, about an inch below the glans, and pus and some sloughs came away. The finger could be passed into the fibrous capsule, and towards the crus into the perineal region. Strapping continued.

March.—During the whole of this month pus escaped from the openings in the sides of the penis, which were carefully kept open, whilst the sides of the organ were compressed by strips of plaster. Water-dressing was applied over the apertures.

April.—Suppuration continued, rather profusely at times, during this month, and about the middle of it an incision was made in the left crus penis behind the scrotum, in order that the pus might escape more readily by gravitation. This was attended with beneficial results; and although the man was low and his reparative powers were much reduced, in spite of a generous diet and tonics, he seemed likely to be soon well.

May.—In the early part of this month the man was rather suddenly seized with great constitutional disturbance, which resembled the commencement of an attack of pyæmia. It seemed, however, to be produced by some local inflammatory action, for after a more profuse escape of pus from the perineal opening the man rallied. From this date (about the middle of May) he gradually improved in health, the discharge of pus diminished, and he left the hospital on June 9th, well. At the time of his exit the penis was of normal size.

The recovery of this patient would have taken place about the middle of February, or in about a month after the extravasation of blood occurred, had not suppuration arisen, to which cause his protracted convalescence must be referred. From the moment of his admission Mr. Birkett determined to treat the case on the principle adopted in all swellings resulting from extravasation of blood: that is, to leave the repair of the injury to the efforts of nature, and not to interfere with the process of absorption. The man, however, complained so bitterly of the pain caused by the distension of the organ, that the incision was made for the purpose of affording relief mechanically—a practice Mr. Birkett would not again adopt.

The first case was recorded by Mr. Callaway in 1824. (*London Medical Repository*, 1824, p. 286.) The man was forty-four years old; and, whilst intoxicated, had connexion with his wife. The state of the penis was exactly similar to that above described; and the priapism had

continued unchanged for sixteen days, when Mr. Callaway made an opening into the left crus penis below the scrotum, and a large quantity of dark, grumous blood, with small coagula, escaped. The corpora cavernosa were emptied, and a few days afterwards the man was able to follow his work.

The second case is published in *The Lancet* of July, 1845, and is described by Mr. John W. Tripe, of Hackney, under whose treatment he continued for four days, and was then admitted into the London Hospital, under the care of Mr. Luke. The man was a sailor, aged twenty-six years. The priapism continued after frequent connexion, and was persistent for about four months. In the course of time the blood appears to have been absorbed, and the functions of the organ to have become perfectly restored. The man left the hospital after being therein only ten days, and the further progress towards recovery was unassisted by surgical art.

To these another may be added which we saw recently in St. Mary's Hospital, under the care of Dr. Handfield Jones, and in which, after persistence of the symptoms for a month, relief was obtained by an incision made by Mr. Haynes Walton into the corpus cavernosum of one side.

ART. 160.—*Radical Cure of Varicocele.*

(*Vierteljahrsschrift für praktische Heilkunde*; and *Edinburgh Medical Journal*, March, 1867.)

Maisonneuve, for the radical cure of varicocele, recommends the use of coagulating injections of the perchloride of iron by means of a syringe. A single injection of two to twenty-five drops is sufficient to obliterate the whole bundle of the veins of the plexus pampiniformis without the slightest risk to the life of the patient, or to the integrity of his sexual functions.

ART. 161.—*Hydatid Cyst confined entirely to the Abdominal Wall.*

Under the care of Mr. HOLMES, of St. George's Hospital.

(*The Lancet*, March 30, 1867.)

This case is given as an instance of an affection which is rare, especially in childhood—viz., a genuine hydatid tumour confined entirely to the abdominal wall, though close to the position of the liver. On the boy's first admission into the hospital, the diagnosis of a superficial hydatid was formed, and it was proposed to expose it by a free incision in order to enucleate it. This, however, was considered dangerous by some of those who saw it, and who believed that the cyst had some communication through the abdominal wall with the interior of the

body; and it was decided to evacuate the watery fluid and inject the cyst with iodine. But, on a second puncture, so little fluid escaped that this course was clearly impossible, and it was decided to recur to the previous plan when the tumour had refilled. Fortunately, the violence to which the interior of the cyst had been exposed in theappings caused it to suppurate, and thus produced the extrusion of the hydatid, and the cure of the affection by a simple incision. The child is now quite well, and it is clear that the cyst was entirely superficial.

J. E. was admitted on Dec. 5th. The boy had been an out-patient for about two months, with a fluctuating tumour in the abdomen. This rapidly increased in size for fourteen days before his admission, but gave no pain. It was punctured with a grooved needle, when a watery fluid escaped, containing a trace of albumen, but no parasites.

When admitted, there was a tumour about the size of a walnut on the right side of the linea semilunaris, considerably below the edge of the liver, which occupied its normal position.

Dec. 6th.—The tumour was punctured with a trocar, and but little fluid escaped. It was of a watery nature, and contained very little albumen. No hooklets could be found under the microscope. The quantity of chlorides was not determined.

17th.—Renewed puncture. Hardly any appreciable quantity of fluid escaped.

18th.—The tumour has greatly diminished in size, and there is hardly any sense of fluctuation.

21st.—He was discharged.

On the 9th of January he was again admitted, with the tumour enlarged to the size of an egg. It was distinctly fluctuating, and appeared to lie between the abdominal muscles and the skin. Just below its centre was a small point of reddened skin. The tumour was neither painful nor tender to the touch. Poultices were applied, and on the 17th it was opened, when an hydatid cyst escaped. The tumour then rapidly diminished in size, and the boy was discharged well on the 27th.

ART. 162.—*On the Diagnosis between Hernia and Enlarged Inguinal Lymphatic Glands.*

By JOHN W. OGLE, M.D., F.R.C.P., Physician and Lecturer on Medical Pathology at St. George's Hospital, &c.

(*British Medical Journal*, May 4, 1867.)

“At the recent meeting of the South-Eastern Branch of the Association, two very interesting cases were related by Dr. Bowles, of Folkestone, illustrative of the difficulties which may arise in diagnosing hernia, by reason of the presence of enlarged lymphatic glands in the groin. In the last of these, the patient had worn a truss for several years owing to a swelling as large as a small orange in the inguinal region, which consisted of enlarged glands caused by gangrene of the

toe, no hernia ever having existed. I am able to "cap" this case of Dr. Bowles by another of a like kind, in which, however, the result unfortunately proved fatal. The case occurred in St. George's Hospital, and the patient died on the day after admission. It was as follows:—

"William A., aged eighty, was admitted October 5th, 1846. He stated that for ten years he had worn a truss over a tumour occupying the right inguinal region; that, three days before admission, this tumour enlarged, and became red and painful, and that pain in the abdomen and occasional vomiting had shortly come on. No relief from the bowels had been obtained since the symptoms began. When admitted his expression was anxious and his pulse weak, and there was a tumour, about three inches in length, in the usual situation of an inguinal hernia. An incision was made in the long axis of the tumour (in order to ascertain its nature), which was found to consist entirely of enlarged and suppurating inguinal glands. During the night the sickness returned, the patient became much worse, and he died at 11 A.M. on the next morning.

"On post-mortem examination, the lungs were found to be much congested and the heart flabby, and extensive granular disease of the kidneys was met with. The spleen was soft, and adherent to the abdominal parietes. The peritoneum and intestines were quite healthy. The enlarged glands were found to contain deposits of pus. The other parts of the body were healthy."

Dr. Ogle quotes this case as proving how one may be misguided as to the nature of inguinal hernia, and as showing for how long a time a patient may wear a truss for such a tumour which is not a hernia, and what may be the injurious results of such a procedure.

ART. 163.—*Reduction of Hernia by Administration of Coffee.*

(*The Lancet*, March 16, 1867.)

That coffee has a very much more powerful influence on the peristaltic movements of the intestine than tea is pretty generally known; but we doubt whether this action has hitherto been brought into play in the reduction of hernia. The following instance in which coffee was accidentally and successfully employed for this purpose will therefore interest our readers:—A man who had for some years a reducible hernia, while over-exerting himself converted his hernia into an irreducible one. On being seen by Dr. A. Bourillon, who describes the case, he was suffering from colic and nausea, the pulse was small, and a round, hard tumour, giving a tympanitic sound on percussion, existed in the right groin. The relations of this showed that it was a strangulated right inguinal hernia. The taxis was tried in vain for hours. Applications of belladonna, tobacco, salt, &c., were also unsuccessfully tried. The next day the condition of things was worse, and all efforts to reduce the hernia were fruitless. It was therefore determined to operate on the following day, and the patient was meanwhile ordered to have infusion of coffee (100 grammes of freshly roasted and ground

coffee to five cups of boiling water). On coming to operate in the morning, Dr. Bourillon found that the hernia was reduced. According to the patient's own account, the coffee having produced movement of the intestine, seemed to extend the contraction to the hernial sac, which passed inwards suddenly with a distinct *gargouillement*.

ART. 164.—*On a Case of Internal Strangulation of the Bowel by a Band, associated with a Reducible Hernia, successfully Treated by Operation: with Remarks.**

By THOMAS BRYANT, F.R.C.S., Assistant-Surgeon to Guy's Hospital.

(*The Lancet*, March 30, 1867.)

The case was one to which the author was called on December 31st, 1866, by Dr. Wilkinson, of Sydenham. It was that of a gentleman, aged fifty-one, who had been ill for several days with symptoms of intestinal obstruction. The patient had been the subject of an inguinal hernia on the *right* side for twenty-five years, for which he had worn a truss; during that period the bowel had come down on several occasions, but it had only given pain on one—some six months previously. On the morning of December 28th, during the exertion of dragging up a tree, the hernia partially descended, but it was at once readily returned on the application of the hand; vomiting, however, soon appeared, and pain situated on the *right* side of the umbilicus. These symptoms continuing on the 29th and 30th, and increasing in severity, Dr. Wilkinson was sent for. A careful examination was then made, but no hernia was found; there was a large opening into the abdomen, but no swelling nor pain even on deep pressure being made. On December 31st (the third day) the symptoms becoming more severe, vomiting being *fecal*, Dr. Wilkinson, who saw the necessity for an operation, called in the assistance of the author. The seat of the hernia was then examined, but no indications of anything wrong in these parts could be made out, yet marked symptoms of intestinal strangulation existed: pain in the abdomen was very severe; it was situated to the right of the umbilicus, and paroxysmal. Under those circumstances an exploratory operation in the region of the hernia was proposed, and power given by the patient to do whatever might be deemed the best. Chloroform was given, and the ring of the direct inguinal hernia exposed; no signs, however, of any strangulation of the bowel by the parts concerned in the hernia could be made out. A piece of omentum existed in the hernial sac, but no bowel. The finger could also be readily passed into the abdomen, and the neck of the sac was perfectly free. The bowel which came into view was, however, clearly strangulated, for it was of a bright cherry colour, and oedematous. Under these circumstances the ring was

* Paper read at the Royal Medical and Chirurgical Society, March 12, 1867.

enlarged upwards and the strangulated bowel drawn down; the finger of the author's right hand was then passed along the bowel, used as a guide, upwards into the abdomen towards the point of fixed pain. When it had been passed as far as it could go, and as much traction had been put upon the bowel as was deemed justifiable, a tight band was clearly felt. The abdominal incision was then enlarged, and the band, which was made tense by the finger, was carefully divided by a pair of scissors passed into the belly, its points being well pressed into the pulpy portion of the finger till the band was reached. The wound was then closed. On the third day the bowels acted naturally, and a rapid convalescence followed.

The author then made some few remarks upon the case, stating that it must be looked upon as one of internal strangulation of the bowel by a band, and that the hernia had nothing whatever to do with the symptoms. He then passed on to consider the points in the case with reference to the diagnosis, and related the particulars of a similar case which took place in his practice six years previously, in which such an operation as he had performed was proposed but abandoned, and the patient died unrelieved.

An analogy between the successful and fatal cases was then drawn, and the special practical points dwelt upon, the author concluding by stating that he was disposed to believe that in many cases of intestinal obstruction, when the symptoms are marked, and pain fixed and paroxysmal, whether with or without a hernia, relief might often be afforded by an operation where they are now left to die; and he expressed a hope that the cases he had brought before the notice of the Society would do something towards the attainment of that end.

ART. 165.—*Complete Absence of the Rectum, with a perfectly formed Anus: Amussat's Operation: Death from Peritonitis: Clinical Remarks.*

Under the care of Mr. ERICHSEN, of University College Hospital.

(*British Medical Journal*, January 12, 1867.)

A very interesting case of complete absence of the rectal portion of the large intestine, with the unusual coexistence of a perfectly formed anal aperture, presented itself at this hospital a few days ago. A newborn child was brought in with a swollen abdomen, and was stated to have passed no meconium since birth. On introducing the finger into the anus, which was normally formed, it was arrested by a fold of membrane, at a distance of about half an inch. This was divided by Mr. Erichsen with a trocar, but no issue of meconium followed; while the finger, pushed up as high as it could reach, was unable to feel any portion of intestine. Suspecting, therefore, that the rectum was undeveloped, Mr. Erichsen determined on opening the descending colon in the left lumbar region (Amussat's operation). Unfortunately, there

was in this case a long floating meso-colon; so that, instead of being fixed, the descending colon floated freely in the abdominal cavity, and had to be reached through an incision into the peritoneum. Peritonitis set up in consequence, and the child died three days after the operation. On examining the body, the rectum was found to be completely absent, without even a fibrous cord to represent it. There was no sigmoid flexure, and the descending colon terminated abruptly in a *cul-de-sac* at its lower part.

In the course of some clinical remarks, Mr. Erichsen drew attention to the very unusual coexistence of a perfectly formed anus with complete absence of the rectum and sigmoid flexure. Cases of simple imperforation of the anus, he observed, are of pretty frequent occurrence, where all the surgeon has to do is simply to divide with a knife the sort of operculum which closes the anal aperture, and which bulges outwards during the child's ineffectual attempts at defecation. In a second class of cases, the rectum terminates at some distance from the anus, and the surgeon has to dissect upwards to it, and, after dividing, bring down and stitch it to the sides of the anal aperture. In a third class of cases, as in the present instance, there is complete absence of the rectum, which is generally represented by a fibrous cord, although it may be absent, as in this child. In such cases, what is the surgeon to do? He must either stand by and let the child die, as he must inevitably do; or he may give him a chance of his life by opening the descending colon, and thus providing him with an artificial anus. However great the proportion of deaths after this operation may be, Mr. Erichsen is of opinion that it is the duty of the surgeon to recommend and perform it. There are, according to him, certain conditions in which the surgeon must not stand by and let his patient die, but is bound to operate. Thus, he should perform tracheotomy when asphyxia is imminent from laryngeal disease; he should amputate in cases of secondary hæmorrhage, or operate on a strangulated hernia, however prolonged the strangulation may have been; whilst, in retention of urine, the bladder must by all means be evacuated. To such conditions, imperatively demanding surgical interference, cases like the present may be added. Now, the colon may be opened in two places—either in front, as Littre was the first to suggest; or posteriorly, in the lumbar region, by Amussat's method. The former operation is by far easier than the latter; but it is attended with the very great disadvantage, that the intestine can only be reached through the peritoneum; and it is, therefore, nearly always fatal. By Amussat's method, the colon can be reached at the back, where it is uncovered by the peritoneum; although it sometimes happens, as was unfortunately the case in the present instance, that there is a long floating meso-colon, and that the peritoneum has to be divided in order to get at the intestine.

Mr. Erichsen added, that he had known one case in which Amussat's operation, performed soon after birth, on account of an undeveloped rectum and an imperforate anus, had been perfectly successful. The operation had been performed in Mexico; and the child was subsequently brought over here, and several London surgeons were consulted as to the feasibility of some operation that might get rid of the inconvenience of having an artificial anus in the left lumbar region. The

inconvenience, however, was not apparently very great; and the child wore a hernial truss, with an india-rubber covering to the pad, over the aperture, and removed it two or three times a day for the purpose of evacuating the intestine.

It was decided that no operation was admissible, as it was inferred that there was total absence of the rectum for two reasons—first, because there had been at birth a communication between the bladder and the lower portion of the gut, as some faecal matter had been voided *per urethram*, mixed up with the urine; and secondly, because, on passing a bougie downwards through the artificial anus, it went down for some distance, but its point could not be felt anywhere in the perinæum.

There were two remarkable points in connexion with this case; namely, that the artificial anus grasped a finger tightly when introduced into it, by a sphincter-like action; and the mucous membrane of the intestine was everted during defecation, and pushed out the fæces, as it were, as may be seen in the horse.

In his *Traité des Maladies Chirurgicales*, Boyer has recorded a successful case of colotomy by Littre's method, performed at Brest, in October, 1793, by M. Duret, a naval surgeon. The child was seen, in good health, eleven or twelve years afterwards.

ART. 166.—*Fissure of the Rectum.*

(*The Lancet*, February 16, 1867.)

In a very interesting paper on fissure of the rectum, read before the Medical Society of London, by Mr. Alfred Cooper, he said that the most common form of disease of the rectum, and for which the largest number of patients require operation, is fistula in ano; next in order of frequency is internal hæmorrhoids, and third on the list is fissure of the rectum. Out of the 1286 patients admitted at St. Mark's Hospital in 1866, 138 suffered from fissure: of these, 82 were without complication, 20 were coexistent with internal hæmorrhoids, 9 with external hæmorrhoids, 3 with polypus, 3 with stricture, and one, in a boy of five years of age, with procidentia. After stating that this affection was often overlooked by many surgeons, he insisted on the necessity of careful examination [he laid particular stress on digital examination in preference to that by the speculum], not only for the sake of a correct diagnosis, but also to ascertain the existence of complications. He observed that the disease was not uncommonly dependent on other morbid conditions of the bowel, and referred more especially to polypus, which he illustrated by the case of a lady who had been twice operated on for fissure; the first operation failed in consequence of a polypoid growth having remained undiscovered, but the patient recovered after the second operation, when this growth was removed. After giving a careful description of the symptoms of fissure, the author proceeded to detail the history of several patients upon whom he had operated where complications existed, and remarked that unless the polypi and hæmorrhoids were removed the operation would be a failure. He briefly

alluded to the symptoms that should lead the surgeon to suspect the existence of fissure, laying particular stress on the acute and long-continued pain after defecation. He was of opinion that in the early stages of the disease, where it had not existed more than six months, it could be successfully treated without operation by regulating the bowels and applying locally an ointment composed of one scruple of calomel to an ounce of lard. That in cases of longer standing, as a rule, operative interference was necessary. That in operating, three courses were open to the surgeon—forcible rupture, free incision, and limited incision. He discarded the forcible rupture as barbarous and offering no advantage, and preferred the free to the limited incision, as in the latter case the wound heals more slowly, and in some instances it altogether fails to effect a cure.

Mr. Rogers Harrison complimented the author on the valuable and practical paper he had read, but said that a plan of treatment sometimes of much use in such cases had not been alluded to—he referred to that by *pressure*, a cone of metal gilt being introduced into the rectum. By this mode slight hæmorrhoids, when present, are often cured at the same time. He preferred, however, the knife to other plans of treatment.

Mr. Henry Smith had only met with two cases, of which one was in his own practice, in which the operation had failed; and in these the symptoms were temporarily relieved. When an incision is made it should, without doubt, be a free one, and a few days' rest afterwards is usually sufficient. In slight cases he uses the grey oxide of mercury ointment; or when, from special causes (as in a case of diabetes which was narrated, and in which he also applied the nitrate of silver twice a week), he does not think it right to operate. But he prefers an operation in almost every case. He agreed with the speakers that the disease is frequently overlooked, and that the symptoms are attributed to wrong causes.

Mr. Canton referred to several conditions which may be indirectly caused by fissure of the rectum—as, for example, chronic constipation, which is sometimes produced by the relaxed state of the mucous membrane higher up the rectum, induced by, and which may remain after, the removal of the fissure. In the case of a clergyman, he twice removed considerable portions of the mucous membrane by tying; but subsequently still larger portions came down, which he was obliged to remove by the *écraseur*. He thought it desirable after these operations to keep the bowels confined for a considerable time by the administration of opium and chalk.

Mr. Mason said that the essential point is to keep the parts quiet after the operation, but that long-continued confinement to bed is not necessary. He pointed out the fact that fissure of the rectum is common after childbirth, though often overlooked by accoucheurs.

Mr. Weedon Cooke bore testimony to the simple character of the operation and to its efficiency, but said that where such fissures have indurated edges from a syphilitic taint, the case must be treated constitutionally.

ART. 167.—*On Simple Fracture of the Ischium ; a Pathognomonic Symptom of this Injury.*

By Dr. DEVALZ.

(*Union Médicale de la Gironde*, December, 1866.)

Examples of fractured ischium are rare. Malgaigne could not collect more than six. The diagnosis also of this accident, when there is not much displacement of the parts, is very difficult. In the cases of Percy and Papavoine, the diagnosis was not at first made out. In the following abridged case the same difficulty occurred. M. Devalz, at the first examination, thought that there was only a contusion:—

A man sixty-one years of age was suddenly thrown from his vehicle on to a rough and stony ground. He was not able to raise himself without the aid of a peasant. When he recovered his understanding he complained of not being able to move his left leg, or to sit upon his couch. There was a sharp pain in the hip and upper part of the left limb, which he was incapable of moving. M. Devalz and one of his colleagues thought at first that it was a simple contusion. But, after three days, the patient requested another examination, during which the ischium was touched, and an exclamation from the patient proved that this bone was the seat of acute pain. M. Devalz was enabled to prove the existence of the following symptoms:

The pain lessened in intensity towards the hip and upper part of the thigh, although the patient pointed out those parts as being the most severely affected; and it was very acute at the level of the ischium, where the least amount of pressure provoked a sharp cry. Limited below by the tuberosity, the seat of pain extended upwards as high as the greater sciatic notch, and nothing could be felt in the external iliac fossa, the hip joint, or the pubis. The projecting portion of the tuberosity was seized between the fingers, and when shaken an abnormal backward and forward movement could be made out, and at the same time repeated crepitation, of which the patient himself was conscious. Crepitation could also be produced by moving the thigh upon the pelvis, and by taking the crest of the ilium in one hand and the ischiatic tuberosity in the other, and working these two parts in contrary directions; the patient could not raise himself into the sitting posture, the thigh could not be lifted, nor could he bear upon it when in the vertical position.

Passive movement was painful. There was no lesion of the rectum or bladder, and no displacement of the bones of the pelvis could be discovered by rectal examination. Finally, formication was frequently felt every day in the thigh and leg,—an indication that the fragments were in contact with and irritating the sciatic nerve.

M. Devalz diagnosed a fracture which below had separated the tuberosity of the ischium from the commencement of the ascending ramus, and which was near to the greater sciatic notch above. A broad bandage was applied, which embraced the buttock, and was kept in its place by a girdle around the waist, and two straps firmly fixed below;

but as this apparatus could not be easily borne, M. Devalz was obliged to content himself with having the patient confined to perfect rest upon a very hard bed. After three weeks the fracture was united, and the patient began to sit without pain. He has been seen since. He walks without limping, although he often suffers in the injured hip, during rainy seasons.

The symptoms which in this case marked the fracture of the ischium may be thus recapitulated: pain more severe in the ischium than in other parts, intensified by pressure upon the bone; abnormal mobility; crepitation easily made out and repeated; total incapacity to sit; immobility of the lower limb in the injured side; sometimes formication along the course of the sciatic nerve.

M. Devalz insists upon the fact of the patient's being unable to sit or to support himself in the sitting posture. He appears to consider this a pathognomonic symptom. It may be admitted that the occurrence of this sign will be very useful as a help to diagnosis. But if this case be compared with those which have been reported by Maret, Percy, and Jobert, it may be seen satisfactorily that pain over the ischium, mobility, and, above all, crepitation, seem to be much surer symptoms.

ART. 168.—*On Thoracentesis in Children.*

By M. GUERSANT.

(*Bulletin Général de Thérapeutique*, October 15, 1866.)

M. Guersant states that the effusions into the pleura consecutive to injuries of the chest and fractured ribs are quickly absorbed in children, but that the liquid effusion dependent upon inflammation of the serous membrane may in young subjects, as well as in adults, necessitate thoracentesis both in acute and in chronic cases. The operation is indicated when the amount of effused fluid cannot be diminished by internal remedies, and when there is a tendency to asphyxia.

In those rare cases where the fluid is circumscribed and confined to one part of the chest, the operation must of course be performed at that spot where there is dulness on percussion and an absence of respiratory murmur; but when the effusion is general, and the whole of the space between the costal and pulmonary pleura is filled with fluid, the surgeon generally selects some particular spot for puncturing the chest. M. Guersant generally plunges in the instrument above the superior border of the tenth rib on the left side, and the eighth rib on the right, and at the junction of the posterior one-third with the anterior two-thirds of the intercostal space.

The following is the method carried out by M. Guersant in operating for effusions into the chest. The instruments he uses generally are: 1. A small curved trochar with a diameter of four millimetres and four centimetres in length, in shape like a tracheotomy canula, and supplied at its outer end with a flap of membrane which falls over its external orifice. 2. Tubes of vulcanized caoutchouc small enough to

pass through the metallic canula. Finally, a syringe, which may be readily adjusted either to the canula or to any of the elastic tubes. The child having been laid upon its back, and held fast in that position, the skin over the spot selected for operation is stretched by a finger of the left hand, so that the cutaneous wound may not correspond to the deep-seated one; and the trochar held in the right hand with the concavity downwards, the piece of membrane at its outer orifice having been previously moistened, is passed through the skin, and curved round the upper border of the rib, with the point directed downwards into the pleural cavity so as to avoid wounding the lung in case the space between the osseous framework and the surface of the organ be narrow. The fluid is then drawn off; if the effusion be simply a serous one, a single puncture suffices to give exit to the fluid, the air at the same time being excluded by the flapping membrane attached to the outer end of the tube. When the cavity has been emptied, the tube is withdrawn, and the small wound, if covered, heals by first intention.

In chronic cases, where the fluid is no longer serous but purulent, repeated tapplings are required, and if the pus be fetid, it is advantageous to inject into the pleural cavity tincture of iodine very much diluted, chlorinated water, or some modifying solution. M. Barth recommends the cleansing of the pus-bathed surfaces with injected water, in order to bring about adhesions more speedily. In these cases a permanent opening is necessary, and for this purpose the curved trochar is allowed by most surgeons to remain; but M. Guersant prefers the use of one of the elastic caoutchouc tubes, which, on account of its flexibility, excites no irritation in the chest, and does not, like the metallic canula, enlarge the wound. M. Guersant inserts the tube by passing it through the canula, which is then withdrawn. Over the external orifice of the elastic tube a piece of gold-beater's skin is tied, so that the pus discharged into the tube runs down into a *cul-de-sac*. When an injection into the chest is necessary, the surgeon first compresses the tube at a short distance from its end, an assistant removes the membranous cap, and the nozzle of the syringe is then inserted, and the solution carefully injected; when enough fluid has been forced into the chest, the extremity of the tube is placed into water, so that no air may pass into the pleural sac at the time the injected fluid is being discharged. The tube is again compressed, after the injection has been removed, and its end again covered by the gold-beater's skin.

It is necessary to take care that that portion of the tube which is within the chest be not too long, so as to irritate the surfaces of the pleura, or prevent the gradual apposition of the surfaces, and thus retard cure. On the other hand, it should not be so short as not to reach the fluid to which it is required to give exit. M. Barth recommends that the tube should always be measured before its insertion, and that the length be carefully noted down. At first from six to eight centimetres may be allowed to remain in; but as the abnormal cavity diminishes in extent, which may be recognised by the small quantity of pus discharged, and a lesser amount of injection being retained, this length should be gradually reduced by withdrawing a small portion of the tube from the chest every day.

When the case progresses favourably, the discharged fluid becomes

gradually clearer and diminished in quantity; at last a time arrives when no more than a few drops of pus are seen. The tube may then be removed.

ART. 169.—*Gonorrhœa in the Male.*

(*The Lancet*, March 16, 1867.)

Subjoined is a comparative view of the mode of treating a very common malady in several of our most important metropolitan hospitals:—

At Guy's Hospital, Mr. Bryant tells us that he finds no treatment so successful as the alkaline. He gives the tartrate of potash in scruple or half-drachm doses three or four times a day; and in cases that have passed through the acute stage, in which want of power exists, he combines the alkali with the potassio-tartrate of iron. In many cases of chronic gonorrhœa the tincture of the muriate of iron as a medicine acts very beneficially.

The treatment of clap by injections Mr. Bryant has found very unsatisfactory. He is now employing a concentrated solution of tannin in glycerine introduced into the urethra on a bougie at short intervals; and, up to the present, his experience speaks favourably for the practice.

London Hospital.—At this institution Mr. Maunder usually treats a case of uncomplicated gonorrhœa, at both the onset and subsidence of the attack, by a mixture, composed of copaiba, liquor potassæ, spirit of nitric ether, and camphor mixture, to be taken thrice daily; and a low diet with abstinence from malt and spirituous liquor. Tea, milk, water, and the like may be taken to any extent. Should the case run on to the acute inflammatory stage, a scruple of acetate of potash, with or without the eighth of a grain of tartar emetic and of morphia, for a dose is substituted, and is ordered to be taken every four hours, night and day if possible. Patients generally manage to take either four or five doses during each twenty-four hours. An occasional purge. No stimulants of any kinds, but as much in the shape of diluents as the patient can be induced to swallow. Should the case degenerate into a gleet, and scalding on micturition have disappeared, twenty drops of the tincture of steel, thrice daily, is the remedy employed. In private practice Mr. Maunder prefers to treat a recent attack of gonorrhœa by oft-repeated injections of sulphate of zinc, not omitting also to apply *general principles* suitable to an inflammatory disease.

St. Bartholomew's Hospital.—In Mr. Callender's practice cases of acute gonorrhœa in the male are treated with injections of sulphate of zinc (two grains to one ounce of water); if there be much local inflammation the use of the injection is suspended for a time, and the inflammation is allayed by means of warm fomentations, warm baths, and the internal administration of opium in some form or another, or by the use of a suppository of morphia introduced into the rectum. During the treatment the general health is considered according to the requirements of individual cases, and under all circumstances medicine is given to maintain free action of the bowels. Diluents are prescribed, and the

urine rendered as little irritating as possible. The ordinary diet, if moderate, is not interfered with. The patients are ordered to keep themselves clean, and to bathe away discharge, from suppurating bubo or from urethra, ten or twelve times daily. The end of the penis, if covered at all, is only loosely so, that discharge may find easy outlet and not accumulate. It is almost invariably necessary to deal with phimosis, when present, by operation, and this for the sake of cleanliness.

Inflammation of the testicle is set right by support (chiefly supplied by the local application of a large linseed poultice, which serves also as a kind of fomentation), by opium, and by the recommendation to remain in the recumbent position for a few days. Enlargements of the glands in the groin are treated with lead lotion and rest (if attainable). If the parts around them inflame they are poulticed, and, if it be absolutely necessary, they are opened by free incision (the line of cut being, without exception, vertical), and are not allowed to break of themselves.

King's College Hospital.—For gonorrhœa in the male the plan of treatment found most generally successful by Mr. Wood is—

In the acute stage—1. To commence the treatment by prescribing abstinence from wine, beer, and spirits of all kinds, and from stimulating food. 2. Then to administer a saline aperient, or a drachm of compound jalap powder, or a drachm of jalap and calomel (if the patient be of bilious habit), at intervals of three or four days or a week during the treatment. 3. Then the administration of liquor potassæ, or bicarbonate of potash with camphor mixture, or the infusion of pareira, three times a day, with the abundant use of diluent drinks, such as toast-water, cold tea, barley-water, or linseed-tea. 4. In a day or two after the commencement of the discharge, the frequent injection of a weak lead lotion made with glycerine, two ounces to each half-pint. This is continued throughout the acute stage. In no instance has it been considered to be the cause of swelled testicle. 5. In swelling of the testicle, the recumbent posture or mechanical support, with hot fomentations and calomel and opium to relieve pain. In cases attended by severe pain, or where prompt relief is urgent, a small puncture into the distended tunica vaginalis and epididymis is at once followed by a diminution or entire cessation of pain. A little blood and serum usually issues from the puncture. In no case has this practice been followed by a bad result. Mr. Wood does not puncture the testicle itself, considering that the chief seat of the swelling in these cases is the epididymis and tunica vaginalis. In one case, where the gland had been punctured by a surgeon, he observed an adhesion formed between it and the skin, giving some annoyance and inconvenience to the patient. 6. To allay chordee, camphor-and-henbane pills are used, or, in severe cases, morphia or chlorodyne, aided by the local application of iced water, lead lotion, or evaporating lotion.

In the chronic stage—1. While the discharge remains thick and profuse, he uses the copaiba emulsion, with dilute sulphuric acid or copaiba capsules, and frequent injections of sulphate of zinc, alum, or nitrate-of-silver lotion; recommending particularly the complete washing away of the discharge by a syringeful of water, so that the injection may be applied directly to the inflamed part. 2. As a change of remedy in obstinate cases, powdered cubebæ in drachm doses. 3. In sluggish

cases with gleet discharge and general debility, he uses tonics and mineral acids, and especially the tincture of sesquichloride of iron, twenty minims three times a day, with water; and if the discharge becomes gleet or thin, he has found great benefit from the injection of a weak solution of chloride of zinc, and also from the perchloride of iron, mixed with glycerine and water in each case. The two latter are his chief resource in cases of gleet not depending on stricture, varied by the application of the same substances by the use of the bougie of cocoa-butter, or with matico.

St. Mary's Hospital.—Mr. Gascoven has found that, in the very early stage of gonorrhœa, before the urethra is much inflamed, and the discharge and scalding are still slight, weak astringent injections, frequently repeated, will generally subdue the disease in a few days. When, however, the inflammation has become severe, with profuse discharge, ardor urinæ, chordee, &c., he does not use injections, but considers copaiba to be the most valuable remedy. This drug he administers in the form of capsules, beginning with small doses, and gradually increasing them until a maximum quantity of from forty to sixty drops of the balsam is taken during the day; this large dose is persisted in for two or three days, and then rapidly decreased. If the curative action of the drug be not experienced within ten or twelve days, it will fail to effect a cure. Mr. Gascoven has frequently seen the disease yield to this treatment, and it gives almost immediate relief from ardor urinæ and irritability of the neck of the bladder; should these symptoms be very distressing and the chordee severe, the medicine may be most usefully supplemented by suppositories of soap and opium.

The effect of the copaiba upon the digestive organs should be carefully watched, and if nausea or purging be occasioned the quantity must be at once diminished. The eruption which is sometimes produced by the use of this medicine is, in Mr. Gascoven's experience, very rare; he considers it to depend upon an idiosyncrasy on the part of the patient, or to his state of health, as it is generally caused by a few small doses of the drug.

After the violence of the attack has subsided, or when the treatment by copabia is insufficient, weak injections may again be employed, with drachm doses of cubebæ if the discharge be very obstinate, and then quinine; tincture of iron and other tonics will often prove of service. Meat and an unstimulating nutritious diet should be given throughout, and the general health maintained, lest the discharge become chronic, when it is often most persistent and difficult to cure. In many cases wine may be allowed from the commencement, and where the discharge shows a tendency to become chronic it will often be found of great service, and especially in persons of a scrofulous habit. Each individual case, however, requires its treatment modified according to the condition of the patient.

The treatment by salines and depletory remedies in the early stage of gonorrhœa Mr. Gascoven has found not only useless in controlling the inflammation, but positively injurious, by allowing time for the disease to run its course unchecked before the employment of more efficient means. The so-called "abortive" treatment—that of injecting strong solutions of nitrate of silver into the urethra to destroy or cut short the

disease at its onset—he has scarcely ever known to succeed; but has seen attacks of gonorrhœa much aggravated by it, and in a few instances dangerous symptoms followed its use.

Charing-Cross Hospital.—Mr. Barwell has for years past treated gonorrhœa as a simple non-specific disease, avoiding copaiba, which, by disordering the stomach and causing loss of appetite, depresses the health, and is apt to increase or lengthen the disease. In case of a first attack, in which inflammation runs high, a purge, hot bathing, and an alkaline medicine, either diuretic or aperient as may be indicated, followed by an injection of sulphate of zinc—two grains to the ounce. Second or subsequent attacks may be treated without such preparation by injection, free action of the bowels being secured, if necessary, by medicine. If the patient apply on the first day of the discharge showing itself, a week may often suffice to check it. More chronic cases may be advantageously treated with tannic acid—three or four grains to the ounce; and, in order that the fluid may remain longer in contact with the mucous membrane, it may be thickened with starch or sugar. Mr. Barwell has not found that orchitis follows the use of injections of the above strength more frequently than it succeeds to gonorrhœa not locally treated; and stricture is certainly a rarer sequela to such treatment than to a clap allowed to run on for weeks or months. The slight but continuous discharge of a gonorrhœa become chronic is often difficult of cure. Turpentine, either Chian turpentine or Canada balsam, with black or Cayenne pepper, is frequently useful. Tincture of steel and tincture of capsicum often avails. As a pepper, cubeb will have a similar effect; but it is not better, and is more clumsy, than the above-named sorts. The most certain and efficacious treatment is by an ointment containing from three to five, and even to ten, grains of nitrate of silver to the ounce of lard. A small bougie smeared thickly with the ointment is passed from half an inch to a inch and a half down the urethra, and left there for half a minute or more; and this should be repeated at least every other day. In general, commencing with the mildest ointment, one need not increase the strength beyond five grains to the ounce. In only one very obstinate case was it used ten grains to the ounce; but the patient got well without a bad symptom.

University College Hospital.—Mr. Christopher Heath uses injections from the first, but modified according to the circumstances of the disease and of the patient. If the patient is seen in the premonitory or very early inflammatory stage, Mr. Heath believes that the disease may be cut short much more effectually and safely by a strong lead lotion (liq. plumbi diac., ʒj, aquæ, ʒvij) than by solutions of nitrate of silver. In the ordinary acute form of the disease, injections of warm water and weak lead lotion, together with bicarbonate of potash and henbane internally, are found to relieve the symptoms, and are followed up by a sulphate of zinc injection when the acute symptoms have subsided. Although beer is interdicted, the patients are permitted a glass of weak gin and water at night, and their diet is not interfered with. Copaiba is rarely given, and only in the cases where the discharge continues profuse, though thin, some time after the inflammatory symptoms have subsided.

Complications.—Chordee Mr. Heath finds to be effectually relieved by

the application of extract of belladonna and glycerine along the under surface of the organ, combined occasionally with a sedative pill (opium or henbane) at night. Orchitis in the acute stage is found to yield readily to antimony in combination with sulphate of magnesia; and when there is much œdema, a puncture is made into the tunica vaginalis, where, under these circumstances, there is a certain amount of effusion. In the later stages, strapping, or the use of mercurial ointment, is found to remove any remaining enlargement.

In cases of gleet, Mr. Heath makes a careful examination of the urethra both with bougies and with the endoscope, in order to discern the exact nature and situation of the disease. If, as frequently happens, a distinctly diseased surface is discovered, a strong solution of nitrate of silver is applied topically with the best results; if the disease appears to be more general, the use of astringent injections, the passage of a large metal bougie, and the internal administration of steel yield satisfactory results. Mr. Heath believes that in many chronic cases the so-called gleet discharge is nothing more than the ordinary secretion of the mucous follicles of the urethra, increased by the over-assiduous manipulations of the patient, and that this subsides as soon as the attention is diverted from it.

Middlesex Hospital.—In the early stage, when the inflammation is acute, Mr. Hulke prefers an injection of acetate of lead, frequently repeated, gives a free purge—commonly compound jalap powder,—and forbids beer and spirits. In the more chronic condition, he often uses an injection of one grain of nitrate of silver to eight ounces of water, the general rule being to use weak injections rather frequently, but stronger ones at longer intervals. In old gleans he prescribes occasionally copaiba or cubebs, but more frequently the tincture of sesquichloride of iron.

Buboës, when seen before suppuration has commenced, are leeches, but, when suppuration impends, are painted over a small spot with a strong solution of iodine, which either effects their resolution or more often hastens their pointing. They are always opened by a vertical cut. Sinuses and induration are treated by a compress and spica bandage.

Consecutive orchitis, at first, when the symptoms are acute, is commonly treated by a few nauseating doses of tartar emetic with Epsom salts; and generally on the second or third day the testis can be strapped. This should be done with the patient recumbent, and before the strapping is applied he should gently compress the testis with his hands, in order to empty it and the scrotum as much as may be of blood. This plan is very preferable to the erect posture, in which dressers commonly strap the testicle.

ART. 170.—*On the Cure of Gonorrhœa by Mild Remedies.*

By Dr. DYES, Verden.

(*Deutsche Klin.*, 43, 1866; *Schmidt's Jahrbücher*, No. 2, 1867.)

Dr. Dyes complains of the habit so common among many practitioners

of prescribing balsam of copaiba at the commencement, or at least during the inflammatory stage, of gonorrhœa. Copaiba, it is known, does harm at the commencement of gonorrhœa; it does but little good after the inflammatory stage has passed off. Dr. Dyes cites some cases in which immoderately large doses of the balsam taken by the patients, it is true in a very arbitrary manner, caused gastritis, nephritis, and even death. It is almost incredible, how practitioners, who throughout the whole course of gonorrhœa order abstinence from everything likely to cause irritation, can, in direct opposition to this, prescribe a medicine so irritating to the kidneys and urinary passages as balsam of copaiba.

From Dr. Dyes' four years' experience, the best way to treat gonorrhœa consists in first of all subduing the inflammation of the urethral mucous membrane by soothing, mucilaginous, and cooling medicine, combined with a spare diet and rest; and directly after the removal of this inflammatory condition an injection is applied to the urethra of zinci sulph. gr. iij., aquæ ꝑss. It is put forward as a very important rule that an injection should never be given twice on the same day. At first the injection is not repeated before the third day, and after three injections, it is repeated again on the fourth day. Six to nine injections are generally sufficient. If the injection be well tolerated, the proportion of sulphate of zinc may be gradually increased by one or two grains, and may be used more frequently.

ART. 171.—*Case of Phosphatic Calculus in the Male Bladder, with a Nucleus of Bone: probably a Sequestrum detached from the Innominate Bone.*

By HENRY THOMPSON, F.R.C.S., Surgeon Extraordinary to H.M. the King of the Belgians, Surgeon to University College Hospital, and Professor of Clinical Surgery.

(*British Medical Journal*, January 5, 1867.)

Mr. Thompson places on record a brief account of the following case, because, as far as he is able to ascertain, there is no precisely similar example described among those annals of surgery which are familiarly known and consulted for rare or remarkable cases. The history is as follows:—

"F. B., aged forty, a muscular and healthy-looking man, was sent to my care at University College Hospital by Dr. R. Uvedale West, of Alford, Lincolnshire, in the end of June, 1865, for some urinary affection of two years' standing.

"He was in bed at my first visit to him on the 27th of June, and I commenced by examining the urethra. I found, situated at three-quarters of an inch from the external meatus, some narrowing of the canal, apparently congenital, which prevented the passing of a middle-sized bougie. The narrowed point was at once divided by a short *bistouri caché*, and a sound introduced into the bladder. I instantly

struck a stone; and, substituting a flat-bladed lithotrite for the sound, crushed two or three times a phosphatic calculus, about three-quarters of an inch or so in diameter. At my next visit on the 30th of June, three days afterwards, finding the patient perfectly comfortable, and that he had passed a fair quantity of fine *débris*, I again introduced the lithotrite, and was conscious of grasping a substance unlike, in the sensation it communicated to my hand, to stone, since it made the two blades adhere to each other in an unusual degree. I mentioned the circumstance at the moment to the surrounding students; and during the process of withdrawing the lithotrite, felt that some rough matter was adhering to its blades, which could not be detached, and which rendered it necessary to draw out the instrument with extreme care and slowness. Having done so, I remarked to the bystanders that the contents of the blades were much more tenacious than stone, and that the material should be hereafter analysed; but I did not then see anything to lead to the supposition that it was anything more than some form of calculous matter.

"The next two days, he passed phosphatic *débris* freely. On the fourth day, I found him with partial inability to void urine; and, recognising the presence of a fragment in his urethra, I introduced a pair of long straight forceps, and slowly but easily extracted a fragment, which was instantly recognised by those around, as well as by myself, as a fragment of bone. On now examining for the first time carefully the unusual-looking *débris* withdrawn at the previous sitting, we identified other bony fragments, but of smaller size. Happily, the detention of this one in the urethra saved it from the demolition which certainly awaited it from the jaws of the lithotrite, had it remained in the bladder. I now questioned the patient closely as to his habits and history, supposing it possible that a piece of bone might have been purposely introduced, perhaps as treatment of the above-mentioned stricture at the orifice of the urethra; but, after sufficient investigation, I could entertain no such suspicion. Turning the patient on his left side, I then saw, for the first time, large cicatrices of former wounds or abscesses about the situation of the right innominate bone; and we learned the following history:—

"He had first suffered severely in the right hip seventeen years ago; he was lame for more than a year, and experienced much severe pain about the right hip, groin, and thigh. After this, an abscess broke externally. He was then confined to his bed some weeks, but afterwards walked about, and was tolerably well. A similar attack took place three or four years after the preceding one, and during a few years subsequently he was subject to the formation of abscesses, and to the pain and lameness resulting. After that, he was tolerably free for some time. Two years ago, he was laid up again for several weeks with pain and lameness, but without the formation of abscesses. He was confined to his room for eight or nine weeks, and gradually recovered; but was then attacked for the first time with severe pain and frequency in passing urine, shortly after experiencing the ordinary symptoms of stone in the bladder, which continued up to the present moment. About a year ago, however, a small stone, which obstructed the urethra, was removed by Dr. West at the time."

Mr. Thompson thinks, after this detail, it will be difficult to come to any other conclusion than that the origin of the calculous formation was the existence of disease in a part of the os innominatum, resulting in the necrosis of a small portion; that this portion ultimately exfoliated and detached itself, to be extruded, not externally by the surface of the body, not by means of abscess which should follow the usual course along the tracks of muscles or vessels, but by one which communicated directly with the bladder; so that the sequestrum made its way into that cavity, and formed the nucleus of the phosphatic stone for which, about two years subsequently, he operated upon the patient. If so—and he cannot see any reason to doubt it, nor can he readily account for the occurrence of bone in the bladder on any other theory—the case is one not only of great rarity, but of extreme interest in regard of the possible course which a sequestrum, and the pus which in greater or less quantity must attend its progress, may take, and be safely eliminated from the body. In cases of diseased spine and hip, the attendant matter has been known to find its exit by the bowel, and also by the bladder. Bullets and splinters of bone have entered the male bladder, as the result of gunshot injury; and this not unfrequently. Again, in the female sex, but much more rarely, the bones of an extra-uterine fetus have gradually made their way into the bladder, and have been removed from it by the surgeon. The present instance, however, of safe elimination of bone by the way of the male bladder, adds one more to the many examples of successful issue to those natural processes, extremely slow in their action, through which the human organism accomplishes results which from any surgical proceeding, however skillfully conducted, would be impossible.

ART. 172.—*Case in which, after Symptoms of Stone in the Bladder had been present for months, and a small Calculus had been detected on Sounding, none was found on Cutting into the Perinæum, where an Abscess had formed.*

Under the care of Mr. ERICHSEN.

(*British Medical Journal*, May 18, 1867.)

This case deserves to be placed on record as one which is almost unique of its kind, and as a fit pendant of the one mentioned in Mr. Cooper Forster's work on the *Surgical Diseases of Children*. The rational symptoms of stone in the bladder, as will be seen from the following history, the particulars of which were kindly communicated to us by Mr. Poore, house-surgeon, had been present for months; and, on sounding the child after his admission into hospital, unequivocal evidence had been obtained of the presence of a stone in the bladder, from the distinct click heard by several persons besides Mr. Erichsen himself. The formation of an abscess in the perinæum seemed again to point to impaction of a stone in the prostatic portion of the urethra, and to an

attempt at what has been termed the "natural cure of stone," of which an instance was lately brought before the notice of the Pathological Society by Mr. Henry Thompson. A calculus, of the size and shape of a white-heart cherry, made its way outwards in a child, through the formation and bursting of an abscess in his perinæum. In Mr. Erichsen's case, the operation performed was not that of lithotomy; but merely consisted in cutting down upon the perineal abscess, with the view of at once extracting the stone supposed to be impacted there. As none was found at that spot or in the bladder, and as, since then, all symptoms of vesical irritation have entirely passed away, the conclusion must be that the stone must have been voided *per urethram* with the urine, and have escaped detection.

Joseph Chaplin, aged three, a pale, sickly-looking child, was admitted on February 10th. His father stated that, since the end of last year, the child had had a difficulty in passing his water; he would cry and pull on the end of his penis, and, when he relaxed his hold, the water would come away "with a gush." As the last drops of water were being passed, the pain apparently increased, as the child then cried more loudly than ever. No blood was ever noticed with the urine. The child often complained of pain in the back; and, since the difficulty in making water first showed itself, he had fallen off a good deal.

On February 15th, the child having been put under the influence of chloroform, Mr. Erichsen passed a No. 4 sound into his bladder, and detected a small stone, against which the instrument could be heard plainly to strike. No further step was taken that day; and, as the child looked in a very unfavourable state of health, Mr. Erichsen decided on having him examined by one of the physicians before operating on him. The report of the physician having pronounced the child to be able to bear an operation, he was brought into the operating theatre on March 8th; but Mr. Erichsen, failing to detect the stone with the sound or staff, the operation was deferred. As it had been felt and heard most undoubtedly on February 15th, the question arose, what had become of it. The child passed all his urine in bed, so that if it escaped *per urethram* the nurse in attendance could hardly have failed to detect it. A hard lump (possibly the stone) could be felt near the bladder, by introducing the finger into the rectum.

March 11th.—There has been no remission of symptoms. The child continues to look ill and to be in much pain. There is some preternatural fulness and hardness in the perinæum, and the child cries out loudly whenever this part is touched. There is a slight mucous discharge from the penis.

March 13th.—The child continues in the same state. There is some muco-purulent discharge from the urethra, and the hardness, fulness, and tenderness of the perinæum continue.

Mr. Erichsen having determined on sounding the child again, he was placed under the influence of chloroform, and a No. 4 sound with a small curve introduced. The sound did not enter the bladder; but, passing over a roughened portion of the urethra, entered a cavity near the neck of the bladder, evidently an abscess. At the same time, there was an increased amount of discharge from the urethra by the side of the sound. No stone could be detected in the cavity; but, neverthe-

less, Mr. Erichsen determined to make an incision into the perinæum. A grooved staff was accordingly introduced, and an incision made in the middle line of the perinæum, passing through the abscess and into the prostatic portion of the urethra. There was a considerable discharge of pus and cheesy matter mixed with blood. No stone could be felt either in the abscess or the bladder. There was free oozing from the wound.

May 10th.—The child has improved considerably in his general health, and has gained flesh and strength. The incision in the perinæum has healed up, and the urine is voided *per urethram*. There are now no symptoms of irritation about the bladder.

ART. 173.—*Impervious Stricture of Anterior Part of Urethra and Urinary Fistula cured by the formation of Artificial Urethra.*

Under the care of Mr. PRIDGIN TEALE.

(*The Lancet*, May 11, 1867.)

In the following case, which presented difficulties not very frequently met with, Mr. Teale carried out a plan of operation suggested to him by his colleague, Mr. Wheelhouse, during the consultation upon the case.

Joseph H., aged thirty-six, was admitted into the Leeds Infirmary on December 30th, 1866. Two years before he suffered from a phagedænic chancre, which destroyed the under half of the glans penis, and, extending some way down the urethra, produced stricture of the meatus and anterior two-thirds of the urethra. This stricture was kept pervious until four months ago by occasional use of the bougie, and then became so much contracted that an instrument could not be passed, and all the urine escaped by a fistula at the side of the penis.

During January frequent attempts were made to tunnel through the urethral cicatrix, but without success.

January 31st.—Whilst Mr. Teale was considering the propriety of opening the urethra behind the stricture, and, by stitching mucous membrane to skin, of securing thereby a permanent opening even at the inconvenience of producing hypospadias at the root of the penis, a suggestion made by Mr. Wheelhouse appeared to solve the difficulty, and was at once carried out. The strictured urethra, extending backwards two inches from the meatus, could be readily felt as a hard cord, beyond which the remainder of the canal appeared to be perfectly natural. The loose skin covering the penis having been reflected from the corona glandis backwards, like an inverted glove, until the anterior two-thirds of the penis was completely denuded, the healthy urethra was opened behind the stricture, and the stricture and cicatrix were slit up as far as the meatus. A catheter was then introduced into the bladder, and laid in the newly-made groove in the strictured urethra. Lastly, the reflected skin was drawn forwards over the denuded penis and catheter, and stitched to the base of the glans.

February 4th.—A narrow ring of the preputial skin has sloughed, and is partially detached.

12th.—Catheter removed.

March 7th.—Middle-sized bougie passed. Patient returned home.

April 23rd.—His medical attendant reports his condition as follows:—
“He passes urine in a good stream through the opening you made, and can easily pass No. 6. All the fistulæ are healed, and the man’s health is quite restored.”

ART. 174.—*Cancer of the Bladder: Hæmaturia: Death.*

Under the care of Dr. RAMSKILL.

(*British Medical Journal*, June 1, 1867.)

The following case is reported by Mr. M’Carthy:—

J. S., porter, aged sixty-five, was admitted into Davis Ward, London Hospital, January 8th, 1867. He stated that, until within the last two years, he had never known illness; that he then began to pass blood with his urine, in consequence, as he believed, of having strained his back severely while lifting a heavy weight, and that he had continued to do so at varying intervals of time ever since. He suffered no pain, but felt weak. At the time of his admission he was remarkably anæmic in appearance, but otherwise seemed very well.

In answer to inquiries, he stated that he never had any stoppage in the stream while voiding his urine, and that the urine was more deeply tinged with blood towards the end than at the beginning. He added, that on three or four occasions a clot of blood had become impacted in the urethra, so as to necessitate the use of a catheter in order to remove it.

Dr. Ramskill said that, judging from the age, appearance, and symptoms of the man, he thought there was probably malignant disease of the bladder, but that as the long-continued hæmorrhage would of itself account for his blanched appearance, it was possible that a vesicle calculus was causing all this mischief, and that to stop this exhausting hæmorrhage was the first thing to be done. For this purpose he ordered half a drachm of bitartrate of potash three times a day.

He said that he did not know how this drug acted, but he had repeatedly proved the efficacy of it in hospital and private practice; and in two-drachm doses it was equally effectual in checking bleeding from hæmorrhoids. He predicted that in the present case the urine, which was then a deep purple, would, within thirty-six hours, have regained its normal appearance.

The next morning, after the third or fourth dose, the urine was clear, and without the slightest trace of blood. As the medicine purged rather severely, it was omitted, and ten grains of bitartrate of potash in an ounce of decoction of cinchona was substituted.

January 16th.—Mr. Couper, at Dr. Ramskill’s request, sounded for stone. None was detected; but the point of the sound was felt to pass

over some rough surface, as if the muscular coat of the bladder were hypertrophied. The urine was twice examined microscopically, without anything definite being discovered.

January 19th.—The hæmorrhage recurred, but was again checked by the bitartrate. He now began to complain of shooting pains in the sacral region, which were relieved by the use of belladonna plasters.

From this time he became evidently weaker, preferred to lie in bed, and at times was in a semi-comatose condition. During the last week of his life he seemed to be in intense agony immediately before and after micturition.

He died comatose on February 12th.

The post-mortem examination was made by Dr. Sutton, pathologist to the hospital. All the internal organs were extremely anæmic. The left ureter was filled with fluid, and distended to about the size of a man's forefinger throughout its entire length, from the kidney to the bladder. The left kidney was atrophied, and almost altogether converted into a small cyst.

The right kidney was enormously hypertrophied.

On opening the bladder it was found to be filled with coagulated blood. On the left side, just above the prostate gland, and extending thence to the orifice of the left ureter, which was completely occluded by it, was a growth which appeared to have its origin in the substance of the bladder. The surface of the growth, which corresponded to the internal surface of the bladder, was evidently in an ulcerating condition, and from this the hæmorrhage had probably taken place. The external coat of the bladder was much stretched by the growth, which was as large as a small pullet's egg. All the other organs were healthy.

ART. 175.—*A Case of Fungus Hæmatodes, in a patient six years of age, developed in a Subcutaneous Lymphatic Gland on the Margin of the Temporal Fascia.*

By W. BIRD HERAPATH, M.D. Lond., F.R.S.*

(*The Lancet*, January 12, 1867.)

The following case is related by Dr. Herapath:—

"Mrs. B. consulted me, in the latter part of 1864, respecting her little daughter, C. J. B., who had had spina bifida in the lumbar region—of course congenitally. The little patient was at that time about four years old. The tumour was small, about the size of a walnut; it had not altered in size. The skin was thin and transparent, and the tumour had not interfered with her movements from the first, as she was able to walk at sixteen months old. It had burst from accidental violence about

* Read at the Bath meeting of the Bath and Bristol Branch of the British Medical Association, on Dec. 13th, 1866.

six months before I saw it, and at that time hæmorrhage took place, but ever since it has wept or discharged a watery fluid; at times this would dry up, then the sac would refill and discharge itself again. Her mother said that the tumour affected her head, and was often the cause of alarming symptoms; these were severe headaches. At these times she shunned the light and disliked noise; but there were no convulsions at any time. She could not even go to church because of the noise of the organ; yet she liked vocal music, and instrumental also, if not too loud. She was generally sprightly and lively in character. Slight internal strabismus existed at the time of her first visit to me, and had only been noticed from the date of the accident. These head symptoms were generally noticed at those periods when the lumbar cyst was refilling and exerting pressure on the cerebro-spinal fluid, but no paralysis of either extremity had ever been observed. I was inclined to attribute these cerebral symptoms to the usual irregularities in diet attendant upon the indulgencies always allowed to children with chronic and apparently incurable disease, and treated her accordingly for that paroxysm which had induced the parents to send for me.

"In the month of August, 1865, this little patient was again brought to me; and then it was on account of a small glandular swelling which had shown itself at the anterior and superior margin of the left temporal muscle. It was as large as an almond when decorticated, but destitute of pain, and situated above the temporal fascia. It was *distinctly movable*. At that time I was disposed to think it of a strumous character, though, if so, the position was unusual, and no other glandular tumours existed.

"I saw her again on the 18th of September, 1865; and in one month it had increased in size, and was then as large as a walnut, but showed no appearance of softening or suppuration. But at that time I strongly recommended its extirpation, as its appearance had become somewhat doubtful, to say the least of it.

"October 4th, 1865, was the last time I saw the child for some months; the parents refusing to have any surgical operation performed, although the tumour was nearly double the size when last seen.

"On the 25th of April, 1866, she was again brought to me; and now it had grown to the size of a cricket-ball. And from this date no further doubt existed as to its nature. It was decidedly of a malignant character, and of course medullary sarcoma or fungus hæmatodes. The spina bifida was observed to decline and decrease in proportion as this cephalic tumour increased; and at length it disappeared altogether and healed up, so that at the time of her death the scar was very little apparent.

"In May last her mother caused a photograph to be taken of this little patient; but although the tumour at that time must have been much larger than a cricket-ball, yet, as the carte de visite was taken from the healthy side, nothing whatever of the disease is perceptible from this view. But in July it had grown to be larger than her own head, and was very irregular in form, distinctly nodulated, and the surface traversed by large venous trunks. It had attained its maximum at that time, and it occasioned considerable distortion of the left eye, by elongating the lids, and pulling them outwards.

"On July 31st we were hastily summoned, as alarming hæmorrhage had taken place from a large vessel having given way; yet the ulceration was only superficial, and much hidden by the hair. During the first two weeks in August ulceration progressed extensively; a large ulcer opened upon the centre of the fungoid mass, and several of the secondary tubera also made deep and ragged ulcers with everted edges; whilst early in August she became paralysed on the right side, losing the use of both the arm and leg. During the last month frequent loss of blood occurred, blanching her body, and reducing her strength exceedingly. She never complained of much tenderness or pain, but an intense itching of the surface annoyed her. Occasionally she would scream out as if a sudden pain had seized her, but these attacks never lasted long; they were probably shooting or lancinating pains, but she was too young to describe them. During the whole of the last two months she was wholly confined to the bed, as the weight of the tumour (about 8 or 9 lbs.) prevented any other position than the recumbent one. Her power of deglutition failing her, as well as her speech, she became incapable of taking any nourishment, and during the greater part of last month she took nothing daily but a few tablespoonfuls of beer, which she had always relished better than anything else, and she gradually sank from exhaustion and anæmia, death closing the scene very tranquilly, without convulsions or loss of consciousness, on Aug. 31st, 1866. She was at the time of her death six years and two months old, and, for her age, tall and well formed, being four feet two inches long when measured for her coffin.

"The treatment consisted throughout in the administration of sedatives occasionally to promote sleep and quiet, and the application of styptics to control the hæmorrhage. The tincture of sesquichloride of iron, and slight pressure with dossils of lint, succeeded effectually. Occasional tonics, with quinine, were at first given, but latterly no medicine was employed. The offensive odour was controlled by the use of a dilute solution of hypochloride of soda as a local disinfectant, and when sufficient was employed it was perfectly effectual."

ART. 176.—*On Lithotomy.*

By MR. W. F. TEEVAN, F.R.C.S.

(*British and Foreign Medico-Chirurgical Review*, January, 1867.)

Mr. Teevan, in an interesting communication on Lithotomy, asserts that he has arrived at the following conclusions:—

1. When lateral lithotomy is performed, the stone ought always to be cut out, and not torn out.
2. That the median operation is not justifiable for the extraction of calculi which are upwards of half an inch in diameter; for if such sized stones be removed by that process, obliteration of the orifices of the ejaculatory ducts and permanent impotence will result.

In support of these propositions, among other arguments, Mr. Teevan adduces the following facts which have been experimentally ascertained:—

1. The prostatic urethra will only admit the terminal joint of the forefinger without laceration.

2. If the introduction of the forefinger be continued, the mucous membrane splits longitudinally as the second joint is passing through. The urethra splits in the roof because the convexity of the joint is pressed against that part. In lateral lithotomy the incision into the prostate prevents laceration of the roof of the prostatic urethra.

3. If a stone half an inch in diameter be extracted through a prostate in which no incision has been made, the mucous membrane of the floor of the urethra is lacerated and the prostate slightly torn; the capsule remains perfect, but the orifices of the ejaculatory ducts can seldom be distinguished.

4. If a calculus half an inch in diameter be extracted through a prostate which has been partially incised, as in lateral lithotomy, the capsule and orifices of the ejaculatory ducts remain perfect.

5. Stones upwards of half an inch in diameter, when extracted by the median operation, lacerate more or less the prostate and its capsule, and obliterate the orifices of the ejaculatory ducts.

6. Calculi of one inch in diameter and upwards, when extracted through a prostate which has only been partially incised, in the lateral operation, lacerate the gland and its capsule completely in a direction downwards and outwards, and obliterate the orifices of the ejaculatory ducts.

7. If a calculus be extracted through an aperture which was made by cutting and not by laceration, then the orifices of the ejaculatory ducts can always be distinguished.

8. The so-called dilatation of the prostate is complete rupture.

9. When a stone is extracted from the bladder by means of a limited incision and subsequent so-called dilatation, either in median or lateral lithotomy, there is always more or less eversion of the gland; that is, in such cases, the stone has a tendency to enucleate the gland from its capsule in a direction forwards. Thus, therefore, only a very small stone can be extracted through a partially incised prostate without completely lacerating the gland and its capsule. In fact, if an ordinary sized stone be extracted, either in median or in lateral lithotomy, by a limited incision, the prostate is found split in two, the halves being held together by a remnant of the capsule about half an inch broad. Some persons would object to deductions drawn from experiments made on the dead body, and say that results obtained ere death must be very different to what happens after lithotomy in the living. It must, however, be remembered that the mechanical properties of the fasciæ are not altered for some time after death, and therefore experiments made a few hours post mortem afford similar results to those which would have ensued on the living.

ART. 177.—*Clinical Account of Two Cases of Traumatic Tetanus successfully Treated with the Ordeal Bean of Calabar.*

By EBEN. WATSON, M.A., M.D., Lecturer on Physiology in Anderson's University, and Surgeon to the Royal Infirmary, Glasgow.

(*The Lancet*, March 2, 1867.)

Dr. Watson relates the following cases, in the hope that others may be encouraged to give this drug a further and a fuller trial than he has yet done; for he believes that the success which he has met with in the treatment of these two cases holds out a fair promise of our being thus led to a powerful and yet manageable remedy in a class of cases notorious heretofore not only for their fatality, but also for the total absence of any rational means of controlling their rapid and distressing progress.

CASE 1.—Annie W., aged eleven years, admitted to the Royal Infirmary on the 12th of November, 1866. About three weeks ago the patient struck her right foot against a stone and bruised and cut it slightly at the side of the nail of the great toe. No attention was paid to it at the time. She has at present the aspect and expression of one who has trismus, and she opens her mouth with difficulty. For this "lock-jaw," which commenced six days ago, she has been sent to the hospital.

She remained in this state, and no violent spasms came on till the evening, when opisthotonos occurred in a very severe form, the body being bent into an arch of nearly three-quarters of a circle. She was so rigid in this state that my resident assistant, Dr. Forsyth, administered chloroform by inhalation, which relieved her for the time, but whenever she came out of the anæsthetic state the spasms were renewed as violently as ever; so much so, indeed, that she was again put under its influence with the same temporary good effect. While under the chloroform the outer half of the toe-nail was cut away from the still inflamed and ecchymosed matrix, and a poultice was applied.

Nov. 13th.—This morning I found her as described. Her jaws were firmly locked, and her body and limbs perfectly rigid. The tendency to opisthotonos was at once induced by the patient's attempting to drink cold water, and also by touching any part of her. Indeed, even though undisturbed, the spasms were very frequent, and always tended in the direction of opisthotonos; hence the poor child found her only comfort in lying on her belly, with her head and shoulders over the edge of the bed; and at this time she required continual attention to prevent her falling out of bed, and as the spasms were coming on, her cries for help were most distressing. I prescribed a dose of calomel and jalap at once, and during the day, every two hours, fifteen drops of the tincture of cannabis indica, a drug which certainly soothes in tetanus more safely than any other.

14th.—Patient's bowels have not been moved by the calomel and jalap. She continues in the same state as yesterday, but in the evening the spasms became much more severe. She was ordered half an ounce of castor oil with a drop of croton oil mixed with it.

15th.—Bowels acted freely yesterday; stools quite black. She has taken the Indian hemp very irregularly, sometimes spitting it out.

Every evening there is a considerable aggravation of the spasms, and this seems to be more and more marked each successive evening.

I now determined to try the Calabar bean, and in the emergency the only preparation of it which could be got was that used in ophthalmic practice for contracting the pupil. I may here mention, for the sake of those who may not have had their attention called to this subject, that the action of the Calabar bean in sufficient doses is to paralyse the voluntary muscles, the very muscles which are spasmodically contracted in tetanus. Hence the prospect of counteracting the influence of the disease by that of the poison. I may also state that the action of Calabar bean in contracting, and that of belladonna in dilating, the pupil cannot at present be satisfactorily explained. We can only assume that in the former case the radiating fibres of the iris are paralysed, and in the latter the circular; but whether this is due, as Valentin has supposed, to the special distribution of the cerebral and sympathetic nerves to these different sets of fibres in the iris, and to a special action of the two substances upon them, it is not easy to determine. On this point I may hereafter enlarge a little; but in the meantime I return to the narrative of my case.

At half-past two P.M. of the 15th November, one square of Squire's gelatine paper, containing the extract of Calabar bean, was put on the patient's tongue, through the space left by a missing tooth. Shortly after getting it she felt easier, was more cheerful, and kicked up her heels as she lay in bed on her abdomen, to show the power she had over them. At three P.M. she got two other squares, at seven P.M. three squares, and at ten P.M. two more. No severe spasms occurred during this evening; she had only a few short starts, but she was always very rigid in both body and limbs, and the opisthotonos and trismus were quite marked. She was more cheerful, however, and spoke more distinctly. Pupils rather contracted. She was to have two squares of Calabar paper every hour during the night.

16th.—This morning I found her quite rigid, and with frequent and severe spasms. In fact, I thought either that the papers were not sufficiently strong, or that they were losing their influence on the patient. I now therefore ordered the following preparation: * Extract of Calabar bean, twelve grains; white wine, one ounce. This made a muddy sort of wine of the Calabar bean, every five drops of which contained about one-eighth of a grain of the extract. Such a dose was to be given every half hour, the effects being carefully watched by my assistant. It will be noticed that the doses were given very close together, for we had already learned that their effects were very short-lived. These doses were regularly given till seven P.M., by which time she had taken eighty drops or two grains of the extract. Only momentary twitches had occurred, and these principally when spoken to. At half-past seven P.M. she was in a semi-comatose condition, lying on her back, with no arching, mouth open, pupils pretty well contracted, breathing quiet and regular, pulse rather hurried and full.

In this state of things the Calabar bean was intermitted for two hours and a half—*i. e.*, till half-past nine P.M., by which time the pupils had again dilated, and transitory spasms were induced by touching or rousing patient with questions. Nine drops of the wine were then given, and five drops thereafter every hour during the night.

18th.—She continues better, breathes more easily, and swallows better;

* None of these preparations of Calabar bean were left *in* the ward, but were kept locked up, and administered either by my assistant, a fully qualified gentleman, or under his superintendence by the nurse of the ward, who is a most careful and attentive person.

pulse 84, of good strength ; pupils natural. Increase the dose of the wine to ten drops every hour.

19th.—Notwithstanding this increase, the patient had three severe fits of opisthotonos early in the morning, and she remained very rigid and the spasms easily excitable till my visit. I now determined to use a stronger dose of the extract, and thus endeavour to conquer the disease. For this purpose I ordered the following pills :—Extract of Calabar bean, twelve grains ; ginger powder of sufficient quantity to make twenty-four pills : one to be taken every hour. By mistake the apothecary made these pills of twice the strength ordered—viz., containing each one grain instead of half a grain of the extract. This was not, however, discovered till the evening, so that the patient took one grain of the extract every hour for eight hours without any particular effect being produced. But half an hour after the ninth had been swallowed, the patient fell into the following state :—Her eyes were widely opened, staring and glassy ; the pupils were contracted to pin points ; the pulse was rapid and intermitting ; there was a mucous rattle in the throat, and the breathing was jerky and fitful. Patient did not answer questions, and gave no sign of sensibility. She had no spasms, neither could they be induced. In fact, all the muscles were completely relaxed, except those of the back, which were still rigid. She either could not or would not move any of her limbs, or make voluntary efforts to swallow. Some brandy-and-water and seven drops of the tincture of belladonna were poured down her throat, she not resisting, and this was repeated in five minutes. No effect was produced on the pupils, but the expression became less death-like. Patient was turned over on her side, for she had lain on her back hitherto, and then she got quit of some reddish-coloured, apparently bloody mucus from the throat by both mouth and nose. The breathing was thus rendered easier, but it was at first very hurried and panting. Gradually it became fuller and slower, and the pulse likewise became slower and more regular. The pupils soon dilated, but the extremities remained quite flaccid during the greater part of the night. As soon as the breathing was partially restored, she seemed to be quite sensible, but averse or unable to move. Towards morning the spasms, though less violent, could be easily induced ; and next morning, at half-past eight, I found no traces remaining of the very remarkable state in which she had been on the previous evening. She was, however, flushed and perspiring ; the pupils were quite natural, but the pulse was quicker than formerly ; it numbered 108 in the minute, but was soft and regular. She expressed herself as better. She had no giddiness or any other disagreeable feeling attributable to the Calabar bean, and she was perfectly correct in her mind.

I remarked that the arms, though still unnaturally stiff, were more under the control of the will than they had been. She could move them a little, and she could separate her teeth just enough to get the edge of a spoon between them. She could also swallow better, and she lay much more quietly, and now generally on her side, in bed.

I considered it prudent to cease giving the bean to this patient for a time, and allow her to rally quite thoroughly from its effects. I therefore stopped it, and once more ordered the tincture of cannabis indica, with appropriate food and stimulants. Under this treatment she improved in strength, but not much in respect of the tetanus. Her spasms certainly never were so strong as formerly, but they were very easily produced, showing that the disease was still unconquered. Besides, the body and legs became again quite stiff, so that if one could have raised her by the foot, he could have held her straight out in any position. At the same time the face had rather a more natural expression, and she could separate the teeth about half an

inch. Her power over the arms was also greater, and she could even move the head a little to one side.

Such was her state at the end of the ten days during which she had no Calabar bean. It seemed to me that the tetanus had received a decided check from the large dose of the bean taken on the 24th of November, and that it had never since assumed its former severity. Still there had been little further progress made towards a cure since the bean was stopped. I therefore recommenced it in the form of tincture, made after the receipt of Dr. Fraser (*Edin. Med. Journal*, vol. ix., p. 124), who considers five minims to be equal to three grains of the kernel.

Dec. 6th.—I ordered the patient to have a dose of five minims of the above tincture every two hours, stopping the cannabis indica.

10th.—Last night without any aperient medicine having been given to her, patient had five large watery evacuations from the bowels. This was the more remarkable because she had previously required a strong dose of castor oil, often fortified with croton oil, to move the bowels, and except from the effect of such medicine they had always remained confined. I have little doubt, therefore, that this was another of the physiological actions of the bean—viz., catharsis.

It was noticed likewise to-day that her muscles generally were much more relaxed. The expression of the face was much more natural; she could laugh and open the mouth wider than she had yet done, and she could chew her food well. Her head and limbs, both superior and inferior, were likewise capable of being moved a little; but her back and abdomen still remained rigid, and the spasms, though very slight, were easily reproduced. The tincture was continued in the same dose, but only every six hours.

After this date her recovery was very rapid, and I find it noted in the journal on the 22nd December that for some days previously the patient had been quite well, and running about the ward. No trace remained of her formidable illness, and from the above-mentioned day she took no more of the bean.

On the 4th of January, 1867, she was sent to the Convalescent Home at Bothwell.

CASE 2.—John M'P., aged thirteen, admitted on the 6th of December, 1866. Three weeks ago patient's left forefinger was drawn in between two pinion-wheels, and the nail was bent backwards, while the side of the finger was slightly torn. The wound was dressed by a surgeon that day. Next day the boy pulled away the nail, which was loose, and the wound healed up in a week. On the evening of Dec. 4th patient first felt a pain in his back and stiffness in his legs. On being closely questioned, he admits that shortly before he felt the pain in his back he had been trying to turn round, and fell backwards, cutting his ear slightly. After lying down in bed that night he says he took starts, which raised up his back. This was the commencement of tetanus. All this time patient had been very confined in his bowels. He had no passage for a week after the accident, when he had one motion. A week after this he got a dose of castor oil, which purged him; and from that time till the present date he has again been confined.

On admission, the tetanic symptoms were well marked. The trismus was so decided that he could only open his teeth for about half an inch. His back and limbs, superior and inferior, are reported as quite rigid; and any slight exertion, such as trying to open the mouth, brings on a spasm which twitches his head backwards in a slight fit of opisthotonos. Complaints of indistinctness of vision at a short distance. Right pupil much dilated, but sensible to light. To have a draught consisting of half an ounce of castor oil and one minim of croton oil.

Dec. 7th.—The oil acted twice yesterday and thrice this morning. Pulse 84, good. To have five minims of tincture of Calabar bean every two hours.

9th.—The doses of the tincture have been regularly taken during the last two days, always with perceptible benefit for about half an hour. During this time patient has slept but very lightly, being easily awakened, and on awaking he has spasms tending more or less severely to opisthotonos. He has taken his food well. Pulse 80, good; tongue white; skin natural. Pupils large, but contractile; right one rather larger than left. Complains of a pain in left side of chest, passing upwards. Heart and lungs healthy. Patient slept but little last night, and is more rigid to-day, especially on the left side of the body. To have four minims of the tincture every hour to-day, carefully watching its effects, and modifying the doses accordingly.

11th.—Had a better night last night than he has had yet; only awoke three or four times. Expression of face is more natural, muscles of limbs are freer, and those of the body are less rigid than they were; but he still takes a general spasm about every quarter of an hour, which, however, is only a third of their former frequency, and they are much less severe than they were. He sat propped up in bed yesterday for a time. Since last report the patient has taken four minims of the tincture every hour. About fifteen or twenty minutes afterwards his pupils are contracted, and from this to half an hour his muscles are in their most relaxed state. These effects seem to wear off very soon, and at the end of the hour the pupils are rather too widely dilated, and the tendency to spasms has increased.

13th.—Was very sleepy yesterday forenoon, and had an interval of about an hour between the spasms, which is the longest he has yet had; they are also much slighter, and he can open his mouth about an inch. The muscles of the body are more relaxed. Since yesterday afternoon he has only had five minims of the tincture every second hour, and he had but two doses during the night.

14th.—Again this morning the dose was given only every three hours, but the spasms became so much more frequent and severe that in the evening it was again increased to six minims every two hours.

15th.—This dose has been continued during the night, and to-day the spasms are again fewer than yesterday, as well as less violent.

16th.—The doses have been regularly given night and day. The patient has not had a single spasm all this day.

18th.—Was out of bed yesterday, and walked, though very stiffly, his back and limbs being less at command than they should be, though not tetanically rigid as before. Thus, he does not in walking bend his knees, but on being asked to do so he bends them quite well. He had only one spasm yesterday, and that was induced by a crutch falling on the ward floor and making a sudden noise, which startled him.

24th.—The above was his last spasm, and in all respects he has continued to improve since last report. He now walks much more freely, opens his mouth, and takes his food well. He takes only six minims of tincture three times a day.

In a few days after the last report the administration of the bean was finally stopped, the patient being in every respect quite well; and after keeping him under observation for a few days, he was sent with the other tetanic patient to the Convalescent Home, on the 4th of January, 1867."

Dr. Watson thinks that the Calabar bean is better borne in this disease than it would be in any other. It was taken and required all along, by the girl especially, in much larger doses than he should prescribe in ordinary circumstances. The rule which he should give to

others, and the one on which he means to act himself, is to begin with a small dose, and rather to diminish the intervals than to increase the strength of the dose, till we become better acquainted with this powerful agent. Dr. Watson greatly prefers the fluid form of administering the bean, as giving less probability of its accumulating in the stomach, which might occur if it were given in the solid form—as, for example, in pills repeated very frequently. The tincture, if well made as directed by Dr. Fraser, is certainly the best and safest form in which it can be administered; and five minims of such a tincture is quite a safe dose to commence with in the case of persons above ten or twelve years of age, as far as his experience goes.

ART. 178.—*Abscess of the Appendix Vermiformis: Operation: Cure.*

By Prof. WILLARD PARKER.

(*Medical Record*, March 15, 1867; and the *American Journal of Medical Sciences*, April, 1867.)

Professor Parker relates the following highly interesting case:—

“J. D., æt. forty, strong, of full habit, was attacked with pain in the bowels at half-past four o'clock in the morning of Friday, January 12, 1866. He has been more or less subject to severe attacks in the bowels for some years. The night preceding the present attack, he had been out with friends and had eaten a late supper. At five A.M. he vomited, and felt some pain in the right iliac fossa. At eight, he took coffee and toast, after which he went down town. During the day he had no appetite, and took no food until evening, when he ate a little cold chicken. There was no movement from the bowels during the day. In the night he had nausea. On the 13th he arose early, having passed a restless night. After breakfast he took two blue-pills. During the day he suffered from pain in the right side, which was relieved by bending over to that side. On the 14th, there being as yet no movement from the bowels, he took a glass of Saratoga Empire water. Pain, restlessness, and nausea still continued. Mustard was applied over the affected side. This evening he had an inefficient movement from the bowels. On the 15th, the above symptoms increased in severity, continued, and in addition he was troubled with eructations. In the evening his family physician, Dr. Sabine, saw him, and ordered opium, and a blister to the affected side, also leeches. On the 16th, I saw the patient in consultation with Dr. S. We found him with a thickly-coated tongue; no appetite; nausea; and a constipated state of the bowels; pulse inflammatory, ranging over 100; skin dry and feverish; abdomen tumid and resonant on percussion; pain in the whole abdomen, but more decided in the right iliac fossa. Over this was a circumscribed tenderness, the boundaries of which could easily be marked out by the fingers. Micturition painful; pain also extended down the right thigh, and to the

right testicle, which was drawn up. He was lying with his right thigh flexed on the pelvis, which position gave him some relief.

The case was diagnosed as probably abscess of the appendix vermiformis. To render it certain, however, that there was no internal hernia, intussusception or impaction of faeces, and to clear up the diagnosis, we ordered calomel, gr. xv, and opium, gr. iij, to be given in three doses. On the morning of the 17th, ol. ricini ʒj, with tr. opii gtt. xx, were administered, and operated freely, a large quantity of scybulous faeces coming away. The immediate effect was an amelioration of all the symptoms. The pulse became soft, and fell to 80; skin moist; tongue less coated; some return of appetite; abdomen less tumid, and the pain became definitely circumscribed in the right iliac fossa. On the 19th, his symptoms indicated a return of his former condition. During this day he was kept under the influence of opium, and on the 20th, finding his symptoms more unfavourable, his exact condition was explained to him and the operation proposed. It was, with his consent, decided that if on the next day there should be no improvement, it should be performed. On the 21st, there being no change for the better, but, if anything, for the worse, and it now being the ninth day of the attack, it was decided to operate as soon as practicable. An injection of catnip-tea was given, to relieve the bowels of wind, and at half-past two P.M., assisted by Drs. Sabine, Sands, Thomas Sabine, and my pupil, Mr. Wynkoop, I commenced the operation.

An incision six inches in length was made through the integument, commencing above, and about one inch from the anterior superior spinous process of the ilium, running towards the symphysis pubis. About one inch of the incision was above an imaginary line drawn from one ant. sup. spin. proc. to the other, and five inches below. The incision was continued carefully down, and all the structures found to be healthy, until the fascia transversalis was reached, which was found to be thickened. This was divided over a director, and right beneath a tumour was felt, which was about two inches long and an inch and a half in width. An exploring needle was introduced, when immediately there gushed up some thick, bad-smelling pus. The sac was now freely opened, and about four ounces of pus, in which there may have been a little faeces, discharged. A tent was introduced into the cavity, and the wound left to close up by the granulations. The patient rallied well after the operation, and passed a good night. The next morning he was in a quiet condition; pulse 84, soft; tongue more moist; abdomen soft; but little fever; wind escaping freely from the bowels; wound discharging healthily. The after-treatment consisted entirely of rest, opium, and nourishment. Perfect recovery took place in three weeks, and at the date of writing (Dec. 1866) he is enjoying perfect health.

ART. 179.—*History of a Case in which there were all the Symptoms of Laceration of the Diaphragm, ending in Recovery of the Patient, and the complete removal of the evidence of serious injury.*

By Mr. SAMUEL SOLLY, F.R.S., Surgeon to St. Thomas's Hospital.

(*Medical Times and Gazette*, May 25, 1867.)

Laceration of the diaphragm is uncommon, but can hardly be called very rare. Nor is it in itself immediately fatal, but the visceral injury with which it is usually complicated soon terminates the life of the sufferer. There are several cases on record where a large hole in the diaphragm has been discovered after death, where no such serious lesion has been suspected during life.

In the excellent article in Holmes's "Surgery," by George Pollock, on injuries to the abdomen, rupture of the diaphragm is treated of, but no cases detailed, or even suggested, of recovery, with a return of the extruded viscera from the chest. The case which I am about to relate had all the symptoms of the ruptured diaphragm, but the complete recovery of the patient, and the complete removal of all symptoms indicating, as in the first instance, hernia of the stomach in the thoracic cavity, have caused me to doubt whether this lesion ever existed. If there was no rent in the diaphragm, then there is only one other explanation, and that seems almost as improbable—namely, paralysis of that side of the diaphragm from laceration of the phrenic nerve; not laceration by the end of the fractured rib, as the nerve and rib did not approach; but the violent lateral bending of the chest across the railway bars, and by which violence the ribs were broken.

It was suggested, when the case was very imperfectly discussed at the Medical and Chirurgical Society, that the abdominal resonance arose from pneumothorax, but there really was scarcely a symptom of that disease. The whole history of the case was opposed to it; and when such pathologists as Dr. Pavy and Dr. Walshe, who saw the case, and whose opinion I now add, pronounced against it, I do not think that the theories of any physician, however talented, are of much value when not founded on personal observation of the case.

I have not related this case *in extenso*, as the daily details are unnecessary.

A. C., lieutenant in the mercantile marine, aged twenty-nine; weight 10 st. 6 lb., with a great capacity of chest and good muscular development. At the time of the accident, which occurred in the forenoon on September 22, 1864, he was in rude health.

While engaged on board a ship in the Victoria Docks superintending the loading of a cargo, he missed his footing, and was precipitated down the hold, a depth of twenty feet, falling with great force on his left side across some iron railway bars. Immediately after the accident he was conveyed to the Poplar Hospital, where it was found he had

sustained a fracture of the base of the radius (Collis's), and a fracture of two of the lower ribs on the left side, but no injury to the abdominal viscera was then apparent. After being bandaged, he was removed to the house of a friend in Bedford-place. On his arrival, he was attended by Mr. Clapton, of Queen-street, Cheapside, from whom I have derived some of these particulars.

Mr. Clapton found him very ill, great oppression of breathing, with a painful, anxious, livid countenance. Mr. Clapton at once removed the bandage from his chest. This afforded great relief, for after its removal he was able to walk up two flights of stairs with assistance. He was immediately placed in bed; Mr. Clapton gave him some brandy and applied bottles of hot water to the feet, which were deadly cold. By these means his oppressed circulation was restored; in about an hour's time the pulse rose to eighty, and the respirations, though not hurried, were chiefly abdominal.

He expressed himself much relieved, and seemed tolerably comfortable till 10 P.M., when on swallowing he complained it hurt him and gave him a burning pain in the region of the stomach, and upwards in the course of the phrenic nerve to the left supra-clavicular region. This pain in swallowing was at that time the only indication of injury to the abdomen, the pulse and respirations remaining the same.

Under these circumstances Dr. Pavy was called in, who agreed with Mr. Clapton in regarding this last symptom with some suspicion. He was now so ill that they doubted whether he would live through the night. He rallied, however, and was a little better the next morning, but on the following evening was again much worse; pulse 140, surface cold, and I was sent for.

I met Dr. Pavy and Mr. Clapton in consultation. I found him in a state of partial collapse, great difficulty of breathing, with a feeble fluttering pulse.

The impression on my mind then was that he was sinking from internal hæmorrhage, possibly from rupture of the spleen, but he was so ill that we were not able to make any examination of the chest. We ordered ice to be applied to the left side, and to take it in small quantities internally. Small doses of acetate of lead and opium were prescribed.

On the following morning, when I saw him again, he was a little better; pulse 120; pain in the side and on swallowing somewhat relieved.

Third day.—Skin warm; pulse 120; breathing difficult; palpitation, but no cough or affection of the lungs. On the fourth day patient still better, and able to be removed on to an alderman's couch; but this change, though conducted with the greatest care, nearly proved fatal, from the amount of dyspnoea that it produced.

Fifth day.—Arm examined, and found to be progressing favourably; general appearance of patient better, but towards evening became worse; palpitation increased, with feeling of suffocation; pulse nearly 130; breathing 30; great weakness. On examining his chest there was abnormal resonance extending upwards to the left side as far as the nipple, and from thence in an arched form to the centre of the sternum, from whence a tympanitic sound was given out on percussion. The apex

of the heart found tumultuously and distinctly beating above the left nipple, the displacement being apparently due to the same cause that occasioned the abnormal tympanitic resonance referred to.

On the sixth day the extent of unnatural resonance had somewhat lessened, and the patient improved; but in the evening he was much worse, and was in a worse state than on the second night. Pulse 135; breathing 30, very faint; voice feeble, only able to whisper. The abnormal resonance increased, and the arch higher. Patient passed a dreamy and restless night, but had improved in the morning; pulse 120; arch of resonance slightly diminished.

Seventh day.—During the day, on slightly exerting himself in moving, he was rendered almost pulseless, but slowly recovered. Resonance slightly increased at night, but had diminished in the morning (eighth day), and from this time the patient generally improved, and was able to bear a bandage on his ribs on the tenth day. This increased the difficulty of breathing for a time, but at the end of a fortnight he had improved; was able to raise himself in bed; appetite better; breathing almost natural; pulse 96. All the time that the abnormal resonance was noticed, the breath-sounds were absent below the nipple anteriorly, and in the same part posteriorly there was tubular breathing and bronchophony, and there was displacement of the heart upwards and slightly towards the right side; there was also at this time an inability to yawn or sigh, the patient having suddenly to stop in the middle of either. Nor could he swallow more than a wine-glass of liquid without complaining of over-distension of the stomach, and the same remark applied to solid food. From this time he gradually but slowly recovered.

On October 12 (the twentieth day), I find the following note of his case:—

Examination of the Chest with Dr. Parry.—Tympanitic resonance on the front of the chest as heretofore, as high as a line drawn transversely across just one inch below the nipple on the left side. At the back of the thorax, on the same side and the same level, there is distant bronchophony and tubular breathing, as if from a compressed lung.

The abnormal resonance which I have described was closely watched day by day, and gave rise to the fear that the diaphragm was rent, and that the stomach was thus allowed to escape into the cavity of the chest. This suspicion was in some measure confirmed by the pain in the course of the phrenic nerve on the reception of solids or fluids in the stomach; also the inability to take more than a very small quantity at a time, and the distressing sense of oppression and weight which its pressure occasioned. The length of time that it took for fluid to reach the stomach was ascertained by making the patient swallow, and listening for its passage into it. The tympanitic resonance was exactly that given by a distended stomach. On the other hand, the steady improvement in his condition, so that he was able to leave his bed and walk about without much dyspnea, his ability to take more food without inconvenience, made me doubt whether such a serious lesion as rupture of the diaphragm could have taken place; and, though he improved every day in general health, the physical signs changed very little. The line of

tympanitic resonance descended a little, but not more than an inch and a half.

Under these circumstances it was necessary to give his parents some idea as to the probability of his being able to resume his active duties as a sailor, and we sought the assistance of Dr. Walshe in consultation.

This took place exactly four weeks after the accident. When Dr. Walshe met us, we explained to him our doubts and difficulties. The first impression was, that if rupture of the diaphragm had taken place, he could not have been so well; but after a most careful and prolonged examination Dr. Walshe said that he thought the hypothesis of a ruptured diaphragm was the only one that met all the symptoms of the case; and during his examination he found that fluid on being swallowed took longer time than natural in reaching the stomach, taking apparently a circuitous course before its arrival at the stomach, and seemed to fall there with a splash. The probability of its being a case of pneumothorax having been suggested, I have obtained from Dr. Walshe the following reasons for not entertaining that opinion when called in for consultation:—

“1. The absence of the special extra-resonance at the top of the chest. 2. The absence of any such notable dilatation of the side as must have existed had excess of resonance so marked depended on gas in the pleural sac. 3. The position of the heart, the organ being carried above its natural site, and not pushed out of its place to the right (there being no evidence from past history of interfering adhesions). 4. The amphoric quality of the percussion—not truly tympanitic or drum-like. 5. The impossibility of detecting any difference of quality between the percussion-note of the portion of thorax concerned, and that of the part of the abdomen immediately adjoining (that is, the stomach region). 6. It seemed difficult to believe that pneumothorax could have existed so long without being followed by pleuritic effusion.”

The patient left London the following day for his father's country seat. While there, all his difficulty of breathing subsided, and he perfectly recovered at the end of three months from the time of the accident. He resumed his duties in the mercantile marine, and has been in perfect health ever since. Exactly how his chest was restored to its normal condition I have not been able to discover; but when I examined his chest, eight months after the consultation with Dr. Walshe, I found the heart in its normal position, all tympanitic resonance gone, and the breath sounds throughout the thorax perfectly natural in quality and position.

Taking all the circumstances of this case into consideration, I am forced to the conclusion that the idea of a ruptured diaphragm was erroneous, and that one of my first theories—for we had several—was correct—namely, that the phrenic nerve on that side was torn, causing paralysis of that side of the diaphragm.

In its paralyzed and flaccid condition, no longer resisting the pressure of the abdominal viscera, the stomach was thrust up under the ribs, occupying the position of the heart and the lower part of the lungs, without being actually in the cavity of the thorax.

It may be argued, however, that it was merely an excessively distended stomach, from nervous shock; but if such had been the case, I think that this deformity would not have lasted four weeks.

ART. 180.—*On Tumours of the Scrotum in Infants.*

By MM. LOUVET and HAYEM.

(*Archives Générales de Médecine*, May, 1867.)

Some very curious cases of testicular and peritesticular tumours in young boys were presented to the Anatomical Society of Paris by M. Louvet. These cases formed the subject of a very interesting report by M. Hayem.

The first case was one of tuberculization of the epididymis in a child five and a half years of age; another case was one of encephaloid cancer of the testicle in a child aged sixteen months; the third was one of fibro-plastic tumour without the testicle in a boy aged seven years and a half. These tumours had been removed by M. Giraldés, and submitted to the members of the society for examination. M. Hayem was requested to make a microscopical investigation. These cases are remarkable, especially on account of the ages of the patients, for all surgical authors agree in the statement that tubercular and cancerous deposits are not met with in the generative organs before the period of puberty. The case of fibro-plastic tumour seems to be altogether exceptional, and no instance can be found reported by authors that in any way resembles it.

In the cases of M. Louvet, the tubercle was developed in the epididymis to the exclusion of the testicle; the cancerous deposit was found in the seminal gland itself, and the epididymis remained intact: this is contrary to the opinion of M. Robin, who asserts that cancerous sarcocele is developed in the epididymis, and does not attack the testicle. The fibro-plastic tumour was formed without the tunica vaginalis, which it enclosed on every side, forming around it a more or less thickened shell. No doubt remained as to the intimate nature of these tumours after microscopical examination.

M. Hayem in discussing the clinical history of the patients who were affected with these tumours, showed that difficulties almost insurmountable were presented to the diagnosis; for these tumours are much more difficult to recognise in the infant than in the adult, and each variety is not marked by its special symptoms. The case of tuberculous disease of the epididymis alone presented sufficient signs to allow of the surgeon's making a diagnosis.

The following are the conclusions of M. Hayem concerning prognosis and treatment.

The immediate prognosis in these cases was not very unfavourable; but when considered with a view to the future it remains very obscure. With regard to treatment, it appears from the practice of M. Giraldés, and from the results derived from it, that castration ought to be per-

formed as soon as the surgeon is convinced of the existence of a tumour which may destroy the testicle. But if tubercular deposit can be diagnosed with certainty, it may be asked whether, as in the case of the adult, the surgeon should not wait before deciding upon the removal of an organ the important functions of which are not completely impaired.

ART. 181.—*On the Employment of Hydrochlorate of Ammonia in Cases of Milky Engorgements of the Breast and in Scrofulous Swellings.*

By M. GUÉNEAU DE MUSSY.

(*Bulletin de Thérapeutique ; Gazette des Hôpitaux*, No. 53.)

M. Guéneau de Mussy, in a clinical lecture delivered at the Hôtel Dieu, called the attention of his hearers to some instances in which he had applied the hydrochlorate of ammonia for the treatment of milky swellings of the breast.

He referred to a case of a young woman who had been delivered three weeks before, and who a few days after her lying-in was affected with chaps in the left breast. These chaps became the starting-points of an inflammation of the mammary lymphatics, which extended and involved the connective tissue separating and binding together the glandular elements; a large abscess resulted, which was opened by an incision. On the other breast there was a deep ulcerated cleft affecting the nipple. The woman, however, continued to give suck; but the breast was certainly incompletely emptied, and being incessantly congested by the repeated attempts of the child to suck which were obliged to be interrupted through pain, became hard, swollen, and tender. Under the skin, which was stretched and marked by red patches, could be felt the sinuous cords formed by the lactiferous ducts. M. Guéneau de Mussy tried on this patient a remedy which had already given good results, principally in a patient who presented a milky engorgement, accompanied by pain, swelling, and redness so intense as to give occasion for fearing the commencement of suppuration. This method consists in the application of a poultice sprinkled with a solution of hydrochlorate of ammonia. From 10 to 20 parts of the salt are dissolved in 100 parts either of decoction of poppy-heads, or of water to which vinum opii has been added. This remedy was applied to the subject of M. Guéneau de Mussy's lecture after she had ceased to give suck and purgatives and a restricted diet had been ordered. Under the influence of this treatment the size of the tumour was considerably diminished, and became painless on pressure; there could, however, be still felt a small inflammatory knot at the lower part of the breast, about the size of a nut, and having a suspicious appearance, particularly as it was surrounded by some cedema. The use of the resolvent was continued, and at the end of three days the breast had returned to its normal condition.

The ammoniacal salt has, in the practice of M. Guéneau de Mussy,

given very good results in some cases of subacute adenitis. In scrofulous subjects, during the course of a tonsillitis, or an eruption on the head, the cervical glands are frequently seen to become engorged, and this condition generally outlives the lesion of which it is the consequence. In these cases the affected part is smeared twice or thrice in the day with a pommade composed of five parts of the hydrochlorate of ammonia, one part of camphor, and thirty parts of lard, and is afterwards covered by cotton wadding.

M. Guéneau de Mussy proved two years ago the resolvent action of this pommade in a girl aged eight years, whose mother and sister had died of tubercular disease, and who was herself affected with considerable strumous engorgement of the glands and cellular tissue situated above Poupart's ligaments on the right side. The whole of the lower third of the internal iliac fossa was occupied by a hard, nipple-like swelling, in the centre of which fluctuation could be felt. The thin skin ulcerated, and there was a discharge of viscid pus suspending cheesy particles. The small opening remained fistulous, but the surrounding tumefaction was not sensibly diminished. This young woman was confined to her bed for many months to the great detriment of her general health. A number of resolvent baths, pommade, and plasters had been tried, and at the same time attempts had been made to support the nutritive powers by the internal exhibition of quinine, iodide of potassium and preparations of steel. M. Guéneau de Mussy made use of the ammoniacal pommade, and within a few weeks the tumour had undergone a marked diminution in size. Three months after the commencement of this treatment, notwithstanding a slight relapse provoked by imprudence, this girl, who had during the previous four or five months received no benefit, was improved so much as to be able to leave her bed, to walk without suffering, and to begin again her usual course of life. A very slight puffiness of the iliac region remained, but this caused no pain.

ART. 182.—*A Case of Double Cryptorchidism (Retained Testicle.)*

By M. BEIGEL, Frankfort.

(*Virchow's Archiv*, Bd. xxxviii. 2; *Gazette Hebdomadaire*, No. 19, 1867.)

Cases of inguinal inclusion of the testicle on both sides are rare, and the surgeon has seldom the opportunity of resolving by microscopical examination that question which is so important from more than one point of view, viz., whether this anomaly may lead to impotence or sterility. Though M. Gosselin, relying upon the facts reported by Hunter, Curling, Cloquet, and Godard, has been able to arrive at the conclusion that impotence does not necessarily exist in individuals affected with abdominal inclusion of the testicle, and that fecundation, admitted in some instances without having been rigorously demonstrated, may be considered as rare and exceptional, in inguinal inclusion, the cases are less

convincing; as M. Gosselin on this point has expressed the opinion that the presence of both testicles in the groin is a very probable condition of sterility and sometimes of impotence. But he asserts that no decisive conclusion can be established on this delicate point without a microscopical examination of the semen. It would, in fact, be dangerous to lay down a general law upon this subject. The following case proves that inguinal inclusion of both testicles is by no means incompatible with the regular performance of the functions of these organs:—

“In a young man, aged twenty-two years, resident in Frankfort, who came under the notice of M. Bergal, the following condition of the genital organs was presented: Penis well developed and of normal length; the scrotum empty. In each groin there was observed an oval tumour; the one on the right side larger than that on the left; these tumours were easily recognised by the touch as the testicles. The young man experienced no inconvenience; coitus was performed frequently and even vigorously. Ejaculation seemed to be produced normally, and after sexual relations were abstained from for a long time he had nocturnal emissions. Microscopical examination of the semen exposed to view a great number of spermatozoa. These characters sufficiently established the virility of the young man; and a single case of this kind satisfactorily demonstrates that testicles retained in the groin may preserve their structure and their functions intact.”

ART. 183.—*Encysted Hydrocele of the Cord: Injection of Alcohol: Cure.*

By M. DE LUCÉ.

(*Gazette des Hôpitaux*, No. 41, April 6, 1867.)

“On January 19th, 1865, a youth, aged nine years, came under my notice who had a tumour on the right side of the scrotum. This tumour was pyriform, of the size of a turkey’s egg, firm, irreducible, painless, and transparent; its greater extremity extended from the inguinal ring to the middle of the fold of the groin; the small end was directed downwards and inwards, and was distinct from the testicle, which rested above it. The parents, who had noticed the swelling for some months, asserted that its only consequence had been a slight impediment to the child’s walking. The only treatment that had been applied consisted of alcoholic compresses.

“I ordered the external application of tincture of iodine, and a few days later commenced a course of Faradisation, lasting about ten minutes every day. No marked result was obtained by these means, so, on February 12th I punctured the tumour with a trocar, and brought away a large amount of lemon-coloured serous fluid. I then injected through the canula 7 grammes of alcohol. The liquid was allowed to remain within the cavity of the cyst, and I ordered the patient to rest in bed, and to apply cold-water compresses over the seat of the tumour.

On the 13th the child was sick, the pulse was frequent, and the scrotum had become red, painful, and of its former size. Sedative draughts, a laxative enema, and cold compresses were ordered. On the 16th the swelling was diminished to one-half, there was scarcely any pain, and the appetite was normal. By digital examination of the scrotum, I made out a hard, firm, almost insensible tumour of a cylindrical shape and of the size of a finger, which extended from the inguinal ring to a spot about the distance of an inch from the testicle. On the 1st of March nothing more could be made out than the presence of a small hard swelling of the size of a nut, situated in the tract of the cord, and very distinct from the testicle. About four months later no remains of the tumour could be discovered.

ART. 184.—*On Congenital Sacral Cystoma.*

By Dr. KLEBS.

(*Virchow's Archiv*, xxxvii. Bd. 2 H. 1867; *Gazette Hebdomadaire*, No. 18, 1867.)

Cystic tumours of the sacral region, though rare, have been described by several authors. Instances of their occurrence have been reported by Meckel, Stoltz, Ehrmann, Giraldès and Michel, and Heschl and Luschka.

The majority of these tumours are described as consisting of cysts with fibrous walls, within which exist, here and there, cartilaginous bodies; the interior of the cyst is lined with pavement-epithelium, and, in some instances, with cylindrical and ciliated epithelial cells.

The real origin of these growths has not yet been determined; the majority of them are congenital, though some have been observed in adults. When Luschka discovered the coccygeal gland, he was induced to look upon this structure as the possible origin of the cystic sacral tumour, and the position of the gland in the depression formed between the two tendinous insertions of the levator ani muscle into the fourth piece of the coccyx, and its structure of a dense fibrous stroma with numerous closed vesicles, enclosing epithelial elements, were weighty arguments in favour of his opinion.

Dr. Klebs thinks, however, that this origin ought not, in a great number of instances, to be admitted, and in the case reported by him, the origin of the cystic tumour cannot be attributed to the coccygeal gland.

This tumour was observed in a child who died forty-one days after birth; it was situated in the perineum, and was as large as two fists. The anus was pushed forwards, the sacral region backwards, and the tumour extended into the pelvic outlet.

After death, the tumour was found to be adherent to the skin, which was ulcerated over a small extent of its surface. It was covered by a fibrous capsule fixed to the coccyx, and by a thin layer formed by the

fascia of the levator ani muscle. The growth itself was made up of cysts with mucous contents, and separated by septa of connective tissue. Formed by an ovoid mass and divided into two parts by a ridge, which sent off fibrous prolongations to the coccyx, the tumour received two bifurcated branches from the median sacral artery. In front, the tumour extended between the rectum and the sacrum. On the other hand, above the tumour and under the skin, two small lenticular masses were found, each supplied by a branch of the sacral artery, and presenting the structure of the glands of Luschka. Finally, on the surface of the tumour, and near the coccyx, were seen two cartilaginous nodules, resembling in form the cartilages of the coccygeal vertebræ.

The presence of the glands of Luschka, and the existence of the cartilaginous nodules, demonstrate, according to Dr. Klebs, that the tumour did not take its origin from the coccygeal glands, but rather from the extremity of the vertebral column, having been developed from the remains of the chorda dorsalis. Among the cases of analogous tumour, and particularly those that have been collected by Braune, there are many circumstances strengthening this view, for in many instances the absence of some sacral or coccygeal vertebræ was noticed.

From these views it results that the sacral cystic tumours may be compared to the cartilaginous tumours met with by Luschka within the vertebral canal at the posterior periphery of the intervertebral discs. M. Klebs is inclined to admit that these productions, as well as the tumours of the sacral region, have a common correlation with the chorda dorsalis.

ART. 185.—*A New Instrument for Injecting Cancerous Tumours of the Uterus and Rectum.*

By T. J. ASHTON, Consulting Surgeon to the Marylebone Infirmary.

(*The Lancet*, January 19, 1867.)

The philosophic suggestion of Dr. Broadbent for the treatment of cancer is now being put to the test of experience by several eminent members of the profession. The time at present, however, has been too limited, and the observations too few, to admit of any positive deductions as to the attainment of the earnestly desired result—a cure for cancer.

We have yet to learn whether the action of acetic acid on the living cell is the same as when separated from the body and observed under the microscope; and if so, is the acid able to correct that constitutional condition on which pathologists believe the development of the cancerous tumour depends?

In injecting uterine and rectal cancer, Mr. Ashton found the long

slender jet hitherto adapted to the instruments very inefficient, for the reasons, that it was difficult to avoid catching the point in the vagina or rectum, or puncturing the finger which served to guide it to the part of the tumour intended to be injected, and also to ascertain how far the jet had penetrated. To obviate these objections he has had made two tubes, the one sliding on the other. To the inner one is attached a fine gold jet with a sharp point; the outer one, which is the size of No. 6 urethral catheter, and two inches shorter than the inner tube and jet combined, is rounded at the upper end, and perforated by a hole sufficient to admit the passage of the jet. The two tubes combined form a long blunt jet, which, being fitted to a syringe, is readily passed along the finger, without the possibility of injury either to the operator or the patient; the outer tube is arrested by contact with the tumour, and the innertube is pushed on, making the jet penetrate the tumour, the depth to which it does so being indicated by the graduations at its outer extremity.

ART. 186.—*Extraction of a Glass Bottle from the Rectum.*

Under the care of Dr. HOWISON.

(*The Lancet*, May 25, 1867.)

The particulars of the following unusually remarkable case are reported by Mr. A. O. Haslewood, house-surgeon of the Darlington Hospital:—

T. W., aged thirty, a workman in the gas-house, was with some companions amusing himself with jumping over bottles placed above each other with their mouths uppermost. After he had in his turn jumped over the bottles, the top one was missing, and it appeared to have passed through a thin pair of flannel trousers into the rectum. The man, a patient of Dr. Howison, was brought to the hospital next morning. He gave very little appearance of anything being the matter. Immediately after the accident he felt very sick and faint. He went to bed, after trying to protrude the bottle. On his admission, the base of the bottle was found at the extremity of the ascending colon, though, from his description of its situation, soon after the accident it was just about the junction of the transverse and descending colon. An injection of warm soap-and-water was at once given. This had the effect of bringing the bottle within extreme reach of the finger. Dr. Marion Sims' vaginal speculum was used to expand the rectum, and after several attempts to seize and draw it out by a pair of œsophageal forceps, it was at length expelled in a great measure by the action of the bowel, assisted by manipulation. With the exception of the pain experienced in expanding the rectum, the extraction gave the patient little uneasiness, and he walked home seemingly very little the worse. He was directed to remain in bed for a day, and very soon recovered. The bottle is a castor-oil bottle, such as is usually sold by druggists, and is eight inches long, four inches round at the thick extremity, and one inch and a half round the neck. It is rather curious that the bottle should have been plumped down upon so exactly at the anal orifice as to pass up.

without much pain. What the consequences would have been had the bottle broken in its passage, it is rather unpleasant to conjecture.

(C) CONCERNING THE UPPER EXTREMITY.

ART. 187.—*Wound of the Palmar Arch: Secondary Hæmorrhage: Ligature of Brachial Artery: Recovery.*

Under the care of Mr. ARTHUR JACKSON.

(*The Lancet*, March 2, 1867.)

The following case is reported by Mr. Henry Brietzke, House-Surgeon of the Sheffield Public Hospital:—

S. B., aged six years, was accidentally wounded in the hand by her sister while playing with a penknife on December 11th, 1866. She was immediately brought to the hospital. On examination, a small, deep, punctured wound was discovered in the palm of the right hand, directly across the course of the superficial palmar arch; she was blanched and faint, her dress covered with blood, but none was then escaping from the wound. From the position of the puncture it was thought that the superficial palmar arch was wounded: accordingly a graduated compress of lint was placed upon the wound; two pieces of wood arranged transversely to the hand were fixed, one in front and the other behind, for the purpose of exerting pressure upon the pad of lint; the forearm was then flexed, placed upon a splint, and bandaged from the fingers to the shoulder. The friends would not agree to leave the child in the hospital, although it was strongly recommended. The next morning the child was brought in a great hurry, the bleeding having burst out again. On inquiry it was discovered that the father had removed the lint and bandages altogether on account of the child complaining of pain. An attempt was made to pick up the bleeding vessel with forceps, but without success; a fresh compress was arranged as before, omitting the transverse splint on the back of the hand, as there was some œdema. She was then admitted as an in-patient.

Dec. 16th.—No hæmorrhage. Hand swollen considerably.

19th.—Dressings removed; wound looks healthy; still some œdema of hand; a pad of lint was placed upon radial and ulnar arteries at the wrist, the arm bandaged and flexed, but the wound left open.

20th.—Wound looks well, and is cicatrizing.

21st.—Some bleeding occurred in the night, but soon stopped. At nine A.M. there was no appearance of hæmorrhage; bandage and pads rearranged. At four P.M. a gush of blood took place; an attempt was made to seize the vessel without success; a tourniquet was then applied to the brachial, but in a short time the hand became so black and swollen from congestion that the strap was loosened, and the bleeding immediately recurred. Mr. Jackson determined to try pressure again. Three pieces of cork were placed over the radial, ulnar, and interosseous arteries, the latter being felt to pulsate very distinctly; the arm ban-

daged firmly, raised in the perpendicular position, and wrapped in cotton wool; wound left open; tourniquet loosely applied to brachial artery. Beef-tea ordered.

Dec. 22nd.—A small quantity of blood is clotted round the wound; no further hæmorrhage; patient sleeps well; no pain; temperature of hand normal.

24th.—Quarter-past six P.M.: While taking her tea the bleeding suddenly recurred; very little blood was lost, as the tourniquet was immediately screwed up. Mr. Jackson then decided to tie the brachial artery. The patient was placed under chloroform, the vessel exposed about the middle of the arm, two ligatures were applied, and the artery divided between; its dimensions were so small that some difficulty was experienced in deciding as to its identity. Splint applied, arm wrapped in cotton wool.

25th.—Patient comfortable; slight pain from wound in upper arm; hand warm; sensation normal; no pulsation at the wrist. Ordered beef-tea and half an ounce of saline mixture every four hours.

26th.—Swelling of hand much diminished. Water dressing applied to the wound in the palm. No hæmorrhage.

30th.—Ligatures removed.

Jan. 6th.—Wound in the palm of hand healed.

12th.—Radial artery to be felt indistinctly.

20th.—Pulsation in radial artery very feeble.

23rd.—Wound in upper arm cicatrizing. Forearm still weak and stiff.

ART. 188.—*A Case of Dislocation of the Forearm Forwards.*

By M. MAISONNEUVE, Hôtel-Dieu.

(*Gazette des Hôpitaux*, March 28, 1867.)

A woman, aged forty-four years, was on the 18th of January admitted under the care of M. Maisonneuve for a rare lesion of the right elbow. The extreme thinness of the patient permitted a precise determination of the position of the articular surfaces and of the principal muscles, and the true mechanism of the displacement could also be well made out.

The patient states that the injury was caused by her falling out of bed, during which fall her right arm came violently into contact with the edge of a stove. She immediately felt severe pain in the limb, which she at once perceived was deformed.

When seen by M. Maisonneuve the following day, January 19th, the right arm presented the following appearance:—The lower extremity of the humerus projected at the posterior part of the limb, and through the stretched integument could be easily felt all the tuberosities and depressions of its articular surface. The external condyle, the trochlea, the olecranon fossa, and the epitrochlea were directly under the skin, and uncovered by muscular or tendinous fibres. The triceps muscle was slightly stretched, and was directed outwards and forwards, so that its lower portion passed in front of the condyles of the humerus. The

olecranon was intact and situated in front of the trochlea. The greater sigmoid cavity was turned backwards and applied to the articular pulley; the coronoid process being lodged in the olecranon cavity. The posterior surface of the olecranon was turned directly forwards, and could be felt with facility, though covered by a mass formed of the internal and external muscles of the forearm by which the head of the radius was completely concealed.

Passive extension and flexion could be easily produced, the last movement increased the tension of the skin on the posterior aspect of the joint, and facilitated the recognition of the various projections and depressions of the articular surfaces of the humerus. The forearm was slightly flexed and forcibly pronated. The palm of the hand could, however, without much difficulty, be turned forwards, by the combined rotatory movements of the humerus and radius.

The patient having been placed under the influence of chloroform, M. Maisonneuve proceeded to reduce the dislocation; direct traction of the forearm was first attempted, but no separation of the articular surfaces could be produced; the forearm was then forced directly outwards, and this movement succeeded in unlocking the parts; the olecranon was observed to become disengaged from the muscles which covered it in front, and at its outer border, which was now turned inwards, the head of the radius could be felt. At this moment the greater sigmoid cavity of the olecranon which was turned backwards, became freed from the trochlea, and embraced the condyle of the humerus. Considerable force had to be exerted to push it farther outwards, but directly the obstacle was overcome, the forearm was supinated, and the greater sigmoid cavity again turned forwards and passed behind the lower end of the humerus. The dislocation was not yet entirely reduced; it was only converted into a simple backward dislocation; and fresh efforts were required in order to complete the reduction. It was then found that all the parts of the joint were in proper position, extension and flexion could be executed freely, and there was no fracture either in the articular extremity of the humerus, or in the upper ends of the ulna and radius.

M. Maisonneuve, in his clinical remarks upon this case, stated that this luxation was but an exaggerated form of the external lateral dislocation. The bones of the forearm first forced outwards were by complete pronation brought round the condyle of the humerus and carried to the front of the lower extremity of that bone. In this new situation the head of the radius corresponded to the epitrochlea, the sigmoid cavity of the ulna was turned backwards and embraced the trochlea, the rough posterior surface of the olecranon was directed forwards, and its apex was lodged in the coronoid depression of the humerus, whilst the coronoid process corresponded to the olecranon fossa of the same bone.

The triceps muscle was carried by the olecranon round to the anterior part of the condyle of the humerus; the trachialis anticus and supinator brevis muscles were lacerated; but the biceps and sub-anconeus remained almost intact. The vessels and nerves were not in the least involved.

For two days after the operation the patient was extremely uneasy, and the arm was again dislocated. It was reduced, and special precautions taken to avoid another accident.

On the fourth day the integument about elbow mortified, the gangrene extended, and in the course of a few days the skin was destroyed over a space of the size of the palm of the hand, leaving the articulation exposed. Notwithstanding this untoward event, the general condition of the patient was kept up. Reparation has commenced, and everything promises a speedy and complete recovery.

ART. 189.—*Aneurism of the Brachial Artery Cured by Manipulation.*

By F. POOLE LANSDOWN, Esq., Surgeon to the Bristol General Hospital.

(*British Medical Journal*, March 16, 1867.)

The following case, which is one of great interest, owing to the rarity of the situation of the aneurism, and the rapidity with which it was cured, is related by Mr. Lansdown:—

J. D., aged forty-five, an insurance agent, living at Newport, came under my care at the Bristol General Hospital on the 30th of January, 1866. He was a tall spare man, with only one leg, his left thigh having been amputated twenty-four years previously for inflammation of the knee-joint. It was removed rather high up, so that he had used a crutch ever since. He first noticed the swelling in his left arm about a month ago. When getting out of bed one morning, his attention was called to it by the pulsation; it gave him no pain. He at once consulted a surgeon, who applied a bandage over it, and advised him to go up to Bristol.

The tumour was fusiform, of about the size of a duck's egg, soft and pulsating, expanding in all directions; it was situated about two inches below the posterior fold of the axilla, in the course of the brachial artery. On the current of blood being stopped, it was easily emptied, gradually refilling when the pressure was removed. A loud *bruit* was to be heard over the tumour.

As he had to return home on business, he did not come into the house until February 2nd, when, on examining the aneurism, I was at once struck with its hardness and want of pulsation. On questioning the patient, he told me that he noticed the change in the swelling on the day after his visit to the hospital. The pulse at the wrist could just be felt, though very feeble. There was not the least pulsation in the tumour, nor was any *bruit* to be heard. The left hand was a little cooler than the right. I ordered him to remain in the horizontal position, on a simple diet.

Feb. 5th.—The tumour was sensibly smaller; and the radial artery was more easily felt at the wrist.

Feb. 7th.—The circumference of the arm over the tumour was less by half an inch than on the 5th. The radial pulsation was stronger. A branch of the superior profunda along the outer side of the arm, apparently nearly as large as the radial artery, was seen pulsating.

Feb. 19th.—The circumference of the arm was one inch less than when first measured, showing how much the tumour had subsided. He was made an out-patient to-day.

July 31st.—The patient presented himself to-day, quite well, and free from any inconvenience. A fibrous cord was all that remained of the aneurism.

Mr. Lansdown says the constant use of the crutch was the apparent cause of the disease; and he attributes the cure to the detachment of a portion of clot during the examination at the first interview. He handled it rather more freely than he should otherwise have done, in order to show the students the diagnostic signs of aneurism.

ART. 190.—*Encephaloid Disease of the Arm: Amputation of the Limb below the Shoulder: Recovery.*

Under the care of Mr. HOLMES COOTE.

(*British Medical Journal*, March 2, 1867.)

The patient was a married woman, forty-seven years of age, of pale, sallow aspect. She presented in the middle third of her left arm a very vascular tumour, of bluish hue, of the size of an orange, and surrounded for some distance by large blue veins. She stated that she first noticed the swelling nine months ago, and that it was from the beginning intensely painful. The limb had wasted, except about the elbow-joint, and she complained of loss of power and of a sense of cold in it. The integuments about the joint were beginning to assume a bluish tint, and had a doughy look and feel. From the appearance of the part, no doubt was entertained that a secondary deposit of cancer was taking place in it. Under these circumstances, Mr. Coote determined on removing the limb, and accordingly amputated it just below the shoulder. On cutting through the tumour in the upper third of the arm, it was found to consist of soft encephaloid matter, which presented for the most part the typical brain-like aspect of this form of cancer, but the outer portion of which was dark red, very vascular, and had more the characters of epithelial cancer. The mass was developed in the skin and the cellular tissue underneath, but did not encroach on the muscles. The cutaneous and ligamentous tissues round the elbow-joint were infiltrated with the same kind of material, as had been suspected. There was no enlarged lymphatic gland in the axilla, and strangely enough, the disease in this case had spread in a centrifugal direction, for the patient was positive in her statement that the tumour in the upper arm had been the first to make its appearance, and that the tissues about the elbow had only recently become involved.

The operation was performed on January 19th, and the patient was discharged well, the other day, with a stump perfectly healed up.

ART. 191.—*Reduction of Dislocated Humerus by the Pendulum Method.*

By Prof. SIMON, of Rostock.

(*Langenbeck's Archiv für Chirurgie*, Bd. viii. Heft 1.)

Prof. Simon gives the following instructions for reducing dislocations of the humerus by a novel procedure called by him the pendulum-method:—

The patient is laid upon the ground in front of a chair or bench, the sound arm being downwards and bound to the thorax by a towel, so that no support can be given by it. An assistant standing upon the chair, seizes the dislocated limb by the wrist and draws it upwards, the operator at the same time grasps the shoulder and attempts to reduce the head of the humerus. When increased power of extension is required, and a higher elevation of the body rendered necessary, a napkin is fixed round the wrist and fastened to a rope which may be passed over a hook or through a pulley, and the patient is then hauled up by an assistant. When the whole weight of the body is desired for counter-extension, the ankles of the patient must be bound together and raised from the ground by a second assistant, so that no support can be given to the body by the legs. The operator can, by pressing upon the shoulder, increase the amount of extension-power. By the pendulum movement of the suspended patient, the slit in the articular capsule is widened, and reduction of the humerus facilitated.

Prof. Simon thinks that the pendulum-method possesses the following advantages over other plans for reducing dislocations of the head of humerus:—

1. It is easily and safely applied.
2. Little or no assistance is required: if the case be a simple one, the surgeon may reduce it himself by raising the patient; if it be difficult, any individual, even though he be inexperienced, may be of service.
3. The extension is made gradually and regularly; the weight of the patient's body keeps up the counter-extension.
4. The extension can be carried to the highest permissible extent; the average weight of the body is from 120 to 130 lbs., and this extension-power may be increased to 200 lbs. by the pressure of the operator upon the patient's shoulder.

Prof. Simon has applied the pendulum-method with success in seven cases—six of subcoracoid, and one of subglenoid dislocation of the humerus. In six cases the displacement was recent; in one it was of three weeks' date. Previous attempts at reduction had been made in most of the cases. In five cases the dislocation was gradually reduced without the assistance of chloroform.

ART. 192.—*Scirrhus of the Breast: Removal of the affected portion of the Gland only.*

Under the care of Mr. LUTHER HOLDEN.

(*British Medical Journal*, March 2, 1867.)

It is an open question still with many, whether cancer is in the beginning a purely *local* affection, or whether it is constitutional from the very first. If the latter view be the true one, it may well be asked, What is the use of operating at all, or of trying to remove the local disease by local treatment, by caustics, &c.? Even if the first view be taken, the question arises, When should an operation be resorted to? and, in the case of cancer of the breast, should the whole of the organ be removed, although a small portion of it be alone implicated? Different surgeons give different answers to these questions. When the cancer is of the encephaloid variety, an early operation is recommended by all; but, when the case is one of scirrhus, some surgeons advocate an early operation, while others concur with Hervez de Chégoin and Leroy d'Etiolles in advising delay, under the impression that more favourable results are obtained when the operation is postponed until time has been allowed for the cancer to localize itself and become more chronic, as it were.

From the line of practice pursued by Mr. Holden in a case of scirrhus of the breast, occurring in an elderly woman, we can easily infer what answers he would give to the questions just asked. The disease dated six months back only, and could not, therefore, be called chronic. It was small; had not involved the skin, nor any of the axillary glands; it affected a small portion of the breast only; and it presented an unusual symptom with this class of tumours—namely, that it gave no pain, or a very slight one only. Mr. Holden merely removed the cancerous mass, and a large slice of that portion of the breast in which it was imbedded. The remainder of the organ, feeling soft and healthy, was left untouched. Mr. Holden stated that this was his usual practice. He had done so in three cases already, and had not had occasion to regret it. In one of these cases, the patient had died at the end of six months; but the other two patients were still well and living—one two years, and the other eighteen months, after the operation. The tumour in the present instance was found, when incised, to present the well-known characters of ordinary scirrhus.

ART. 193.—*On a Case of Excision and Regeneration of the entire Clavicle.*

By JOHN WM. IRVINE, L.R.C.S. Edin., Honorary Surgeon to the Liverpool Dispensaries, and Surgeon to West Derby Union Hospital.

(*The Lancet*, February 16, 1867.)

The following interesting case is placed on record by Mr. Irvine:—

"George W., aged sixteen, a wood-turner, residing in Hygeia-street, was admitted into the West Derby Union Hospital, on the 18th of June, 1866, in consequence of serious disease of the right clavicle, the central portion of which was completely exposed.

"The patient stated that he was attacked with rheumatic fever on April 3rd, and after trying various remedies of popular notoriety, sent on the 10th for my friend, Dr. Lodge, who adopted the alkaline method of treatment, and with such success that in three weeks the rheumatic affection had yielded. Unfortunately, however, at that time the boy was seized with local inflammatory symptoms of a very acute character over the centre of the right clavicle. This inflammation was accompanied with almost intolerable pain, and a great amount of swelling. The pain continued steadily, and the swelling increased rapidly until May 13th, when there occurred a spontaneous discharge of a great quantity of pus. Complete exposure of part of the clavicle followed this evacuation of purulent matter, and the boy experienced considerable relief from pain. The pain, however, returned in a few days after the abscess opened, and may be imagined, as to its extent, when I say that the poor fellow got scarcely more than half an hour's rest at a time up to the date of his admission. The purulent discharge continued, and, according to the boy's mother's statement, amounted to more than a gallon. The mischief was attributed to an effort made to lift a very heavy weight, but there was no evidence whatever of any passive violence to the clavicle.

"On admission the patient was in a very exhausted state, having symptoms of hectic, and a constant purulent discharge from a wound which left an inch and a half of the central portion of the right clavicle perfectly denuded of periosteum, and of a glistening white appearance. He was put upon good diet, and such tonics as were calculated to bear up his strength; but, in spite of all efforts, he continued to lose flesh, and became more and more depressed in spirits, until July 2nd, when abscesses began to show themselves near the sternum and scapula, and I determined to reset the clavicle.

"Chloroform having been administered, I made an incision over the entire length of the bone, and then, as far as possible, dissected the periosteum from its superficial surface. I then disarticulated the sterno-clavicular end, and so placed a spatula as to elevate the bone, proceeding to further separate the periosteum, which, to my delight, I found practicable without very great difficulty. I found it necessary to dissect with extreme care owing to the painfully perceptible pulsation of the subclavian artery, but with perseverance I removed the clavicle comparatively free from its periosteal covering.

"During the removal, hæmorrhage occurred from seven sources. Three vessels were controlled by torsion, and I found it necessary to apply four ligatures. The wound was brought together by eight wire sutures, the arm was confined at right angles across the chest by means of bandages, and cold-water dressings were applied.

After the operation the patient was allowed a plentiful supply of porter, beef-tea, nutritious broths, and every dainty which the governor of the workhouse was requested to supply. No secondary hæmorrhage occurred, and in a week the scapular end of the wound had healed by

the first intention, and the arterial ligatures had been removed. The abscesses which had threatened to point near the sternum and scapula had discharged themselves at the line of incision. The sternal end of the wound, which was healing by the granulating process, had a tendency to gape, but filled up very satisfactorily; the patient being confined to his right side, and having his head thoroughly elevated.

"On September 1st, two months after operation, the entire wound had cicatrized, and the patient had gained more than a stone in weight from the date of operation. He had been able to sit up, and use his arm in playing dominoes, for ten days past.

"On September 20th he expressed himself as quite able to follow his usual employment, and made an urgent request for his discharge, which was complied with.

"It was evident, on examination, that very considerable regeneration of the removed bone had taken place, and was likely to result in a serviceable, if not very elegant clavicle. The patient was cautioned not to use his right arm any more than was positively necessary, and left the hospital in excellent spirits.

"An examination of the clavicle after removal convinced me and every other surgeon who saw it that any operation short of entire extirpation would have proved unavailing. The scapular end of the diseased bone, especially its under surface, was found to be most affected, but the sternal end was considerably disorganized. The articular surface of the sternum was healthy.

"On the 31st of December, six months after operation, I had an opportunity of seeing the patient for the first time after his discharge, and found that he had meanwhile been actively employed at his own business, and had for some weeks been able to use his right arm as perfectly as ever. Occupying the place of the resected clavicle is a new bone, of rather beyond the normal length, and considerably wider, but more flat and thinner, than the original one. This regenerated clavicle plays its part with perfection, allowing the boy to use his arm as efficiently as though no disturbance of the parts had taken place. It is interesting to notice the accuracy with which the limits of attachment of the clavicular muscles can be clearly defined when muscular efforts are made.

"Very few reports of resection of the entire clavicle are on record, so far as I can learn. Of the few cases mentioned by writers, I find only a single instance similar to the one I have narrated. It is reported in *Mém. de l'Académie Roy. de Méd.*, t. xiv. p. 56, by D'Angerville, who says that Moreau removed the whole clavicle in a young man on account of necrosis, and had the satisfaction of seeing the removed bone replaced by a new one, which enabled the arm to regain its former usefulness. The original wound in this case, as in mine, healed very quickly. So far as the actual operation is concerned, I consider it right to say that I found no inordinate difficulty in its performance, further than that which was caused by the proximity of important structures, and my desire to preserve the periosteum."

ART. 194.—*On Scriveners' Palsy.*

By SAMUEL SOLLY, F.R.S., Senior Surgeon to St. Thomas's Hospital.

(*The Lancet*, May 11, 1867.)

A case of complete recovery from this palsy induces Mr. Solly to forward the following appendix to the observations on this disease which are contained in his "Surgical Experiences."

Halse, in Virchow's Handbook, says:—"In writers' cramp the application of all means of healing has proved fruitless." Romberg also says:—"The treatment hitherto pursued, both local and general, has been invariably ineffectual, so that the patients generally ceased from all attempts at cure, and remained satisfied with mechanical contrivances." This account of failure arises, Mr. Solly is now more than ever convinced, from the Germans not insisting upon *entire* rest of the paralysed hand from writing, as he has advised in his work referred to, page 230.

Mr. Solly says:—"This patient, Mr. S., twenty-five years of age, was a clerk in the London and Westminster Bank, when he consulted me on the 20th of October, 1863. At first he improved very decidedly; but not persevering in the remedies ordered and the entire rest I advised, he became much worse, and was obliged to resign his situation. He thus describes briefly what has occurred since:—

"In October, 1864—*i.e.*, eleven months from first attack—my health, which had suffered through anxiety, had begun to improve, and my hand became stronger, so that I could use it for any ordinary purpose; but it was quite useless to hold a pen, to pick up a pin, or perform any action requiring delicate touch. Acting on the advice you then gave me, I carefully abstained from any attempt to test my hand till December, 1865—*i.e.*, fourteen months. During this time I occasionally applied galvanism, and friction by rubbing with the other hand, but ceased taking your prescription—*i.e.*, the sixteenth of a grain of strychnine—having done so steadily for about a year. In December, 1865, a medical gentleman who had been attending my wife, and whose books I had posted with my left hand, expressed a desire to see me attempt to use the right. In compliance with his request I did so, and found, to my joy, I could again, not only hold a pen, but also form letters, though with difficulty. Feeling nervous, I used it but seldom till the March following, when, finding it did not relapse, I became confident, and began once more to practise writing. By Christmas, 1866, I had quite overcome every remaining difficulty, and since that time have had the use of my hand as well and freely as ever."

Mr. Solly remarks:—"From the number of cases which I have now seen, I am convinced that in a well-established case of this disease—*i.e.*, in a case which has been allowed to progress unheeded for some weeks—I have hitherto found that entire rest from hand-writing for three months should be insisted on; but if the case is very recent, then I

have reason to believe, from the following fact, that a much shorter time would suffice.

"Within the last few weeks I was consulted by a clerk in a bank for a slight numbness in the little finger, an indisposition to write, as he expressed it, or a slight feebleness in writing, with a difficulty in closing the hand. These symptoms had existed five days, and would not have been attended to if he had not seen other of his fellow-clerks struck down by scriveners' palsy. The disease commencing with exactly the same signs, I prescribed at once entire rest, with a sojourn at the sea-side; a teaspoonful of the syrup of the superphosphate of iron and manganese immediately after meals. In a short time—about a week—the numbness decreased, and then passed off entirely; at the end of a fortnight he was apparently quite well again. I suppose that in this case the complaint was correctly diagnosed before any alteration of structure had taken place, and hence the rapid recovery.

"In all cases it is important that the general health should be attended to, and suitable tonics given; but that no strychnine should be prescribed for at least two months after the date when the use of the pen had been first abandoned, and that in no form should galvanism be employed until some improvement can be detected.

"My practical experience so far corroborates my theory of this disease: that in a confirmed case the dynamic portion—*i.e.*, the vesicular structure—of the spinal cord or cerebellum, which harmonizes the movement of the hand, has been overworked and disorganized; that it must be reproduced in its original integrity; that the cure consists in giving Nature time and leisure to effect this reproduction.

"I have no positive facts to bring forward in proof that the nervous centre which has been injured is in the cerebellum or spinal cord; but I still incline to the belief that it is in the spinal cord."

ART. 195.—*Dislocation of the Radius and Ulna forward at the Elbow without Fracture.*

(*The Lancet*, Jan. 19, 1867.)

A case of this very rare dislocation occurred at University College Hospital the week before last, during the frost. A strong young man, of twenty years of age, slipped down on the pavement, falling on his left elbow. On getting up he found he could scarcely move the elbow, which was so painful that he applied immediately at the hospital. On examining him, about twenty minutes after the fall, Mr. J. W. Langmore, the house-surgeon, found that there was some swelling and a slight bruise over the prominence of the elbow, with but little swelling elsewhere. The arm was bent at an angle of about 130° , but could be flexed to a right angle and straightened to about 160° , although all movement gave the patient great pain. The forearm was about three-quarters of an inch longer than its fellow. The condyles of the humerus were nearly on a level with the olecranon, which was displaced forward, the tendon of the triceps muscle being very tightly stretched round the

end of the humerus. The sigmoid notch could be felt. The head of the radius could also be felt in front of the lower end of the humerus. Mr. Langmore replaced the ulna by bending the elbow across his knee, and then, as the radius was still dislocated, he reduced it by pressing on its head while good extension was made by assistants. The arm was then put in a straight splint, and an evaporating lotion applied. A certain amount of heat and swelling ensued, but by the fourth day this subsided and the joint was quite moveable.

ART. 196.—*The Results of the Treatment of Non-Bony Union after Fracture of the Humerus by the Introduction of Ivory Pegs through the Fragments.*

By JOHN BIRKETT, F.R.C.S., Surgeon to Guy's Hospital.

(*The Lancet*, May 25, 1867.)

"The failure of bony union of the fragments after fracture of the shafts of the long bones is," Mr. Birkett says, "a rare occurrence.

"The following cases contrast with each other in many interesting particulars. Occurring in differing sexes, nearly at the same age, in the male the repair of a *simple* fracture, unattended by any complication, and treated after the ordinary methods, was arrested by the failure, in the last stage of reparation, to deposit the earthy salts of bone tissue. In the female, a *compound* fracture, complicated with a great extent of local injury of the soft parts around the fragments, and several other severe injuries, the condition of the patient and the secondary consequences of the injury may all be adduced as sufficient causes to explain the fact of non-bony union of the humerus. But, even in this case, the *compound* fracture of the lower jaw united as if under the most ordinary conditions. We may, therefore, perhaps, refer the defective repair of the arm-bone to local causes entirely.

"The most important constitutional and local circumstances admitted to influence the arrest of the deposit of earthy materials in the repair of long bones are as follows:—The constitutional: old age, pregnancy, lactation, syphilis, phthisis, fevers, general cachexia, and scurvy. The local: diseased conditions of the broken bone, injury of the soft tissues surrounding the bone, destruction of its nutritious artery, movement of the fragments, the interposition of muscle between them, comminution, and wide separation of the fragments.

"It might be suggested that the baneful influence of the lead pigments used by the male patient in his work may have induced deterioration of his general health, but there were no traces of lead-poisoning detected. He could not be regarded as a robust nor very healthy-looking man from his facial aspect; yet his muscular system was fairly developed, and he made no complaints of ill-health. The woman, on the other hand, had given birth to a child a few weeks before she received the injury, at which moment she was suckling, and her social position was such as to

lead to the deprivation of repose sufficient to recover her usual strength rapidly. Besides, the effects of the several severe injuries she had received produced an extraordinary amount of constitutional disturbance, and this might well counteract and exhaust the natural reparative processes. In her case we may fairly attribute the absence of bony union of the humerus to the great amount of local injury, which caused sloughing of the soft tissues, and an exhausting amount of suppuration. Also these conditions necessitated the frequent movement of the member, to prevent which, although a suitable splint was applied, was next to impracticable.

CASE 1.—J. H., aged twenty-nine, was admitted an in-patient at Guy's Hospital in July, 1861. A painter by trade, he had lived "pretty freely." He did not appear strong, but had generally enjoyed good health. About two months before admission he fell from a height of about twenty feet; and came to the surgery in consequence of having fractured the left humerus at about the middle and the lower third. The fragments were adjusted in the usual manner, and maintained *in situ* by means of the ordinary splints. He came at intervals, and was carefully attended by the dresser as an out-patient; but at the expiration of two months from the injury bony union had not taken place. In this condition he was admitted. There did not appear to be any indications, either from the state of the patient's general health or of the parts which had been injured, to explain the absence of bony deposit. A splint of leather was carefully made to fit the arm, and to maintain the fragments in a state of perfect repose. Tonics, stimuli, and full diet were given; but after the lapse of about two months and a half the fragments were still ununited by bone.

On the 15th of October I exposed the ends of the fragments by making a vertical incision along the outside of the biceps muscle. I then cut away some fibro-cartilaginous tissue from their divided ends, drilled two holes obliquely, and inserted ivory pegs therein. The fracture had been rather oblique, so that with slight overlapping the pegs retained the fragments in close apposition. This operation was performed about five months after the bone was broken. A splint was adapted to the inside of the arm, and the wound dressed with moist lint. Not the least constitutional disturbance ensued; the wound healed favourably over the ends of the pegs, which had been cut off short—about a quarter of an inch from the humerus; and on the 11th of January, 1862, he left the hospital. At this date (nearly three months since the operation) there was a considerable amount of ossific union, and he was permitted to use the member, as he had done before leaving, with a splint around it for the sake of avoiding injury.

In October, 1862, he had acquired complete use of the member. This man has since frequently visited the hospital. The last time was in June, 1866. Then the pegs still remained in the bone. The usefulness of the arm was quite equal to that of the other, but at the site of the fracture there still remained a slight bony irregularity.

Briefly, then, there was absence of bony union after five months of the ordinary local and constitutional treatment, and bony deposit was excited by the operation in about two months and a half.

CASE 2.—Mrs. F., aged twenty-eight, was admitted into Guy's Hospital on June 9th, 1863, on account of injuries inflicted by the passage of a heavy four-wheeled waggon over her. Besides contusions over the body generally, the special injuries were *compound* fracture of the lower jaw and *compound* fracture of the left humerus, about its centre. There was a long wound in the middle of the inner side of the arm, through which the lower fragment

of the humerus projected. The bone was not comminuted, and the irregular ends of the fragments were capable of being accurately fitted together, and might have been firmly maintained in apposition by means of a peg or wire suture, an operation which I regretted afterwards that I had not immediately performed. Moist lint was laid on the wound, splints were applied, and the arm kept in the most favourable position. The fragments of the lower jaw were adjusted by means of a wire twisted around the teeth. The patient had enjoyed good health. She was suckling a baby, ten weeks old, but she was in a state of healthy nutrition.

Excessive constitutional disturbance was excited by the injuries. She was obliged to give up suckling the infant, and she suffered much with the contusions about the left clavicle and same side of the neck. Not the slightest attempt at repair took place in the wound of the arm, around which erysipelatous inflammation appeared on the fourth day, and extended to the neck and face. Appropriate remedies were administered, consisting of stimulants, ferruginous tonics, and all the food she could take, and in about a week it had subsided altogether. The soft tissues of the arm in the neighbourhood of the fracture were, however, the seat of wide-spread inflammation and suppuration, and at one time there seemed to be but slight hopes of saving the member. Nevertheless, by degrees, the wound assumed a healthy aspect, sloughs came away, and in spite of drawbacks from a troublesome cough, diarrhoea, and suppuration about the injured jawbone, there was complete cicatrization in October. At this date there was no attempt at ossific union of the humerus, although rather more than four months had passed away since the injury. The lower jaw had united and become quite strong in about the usual time.

On October 20th I made an incision on the outside of the arm down to the ends of the fragments, separated them, removed some fibro-cartilaginous tissue, and drilled two holes in the most suitable direction to maintain the fragments in apposition by means of ivory pegs. The shaft of the humerus being small, and the fracture having been oblique, the fragments were not so firmly held together as in the case of the male patient. The pegs were cut short, the wound was dressed with lint, and splints were adjusted. She suffered from the effects of the chloroform she had taken during the twenty-four hours following the operation, but otherwise she was very well. No inconvenience further than the above followed, either constitutionally or locally; and at the end of a week a gutta-percha splint was applied along the inside of the arm. On November 9th one of the pegs came away, after remaining in the bone twenty days; the other one could not be felt. The wound healed about the commencement of December; but although the mobility of the fragments was less than before the pegging, there was not ossific union. During January the ends of the fragments were protected from injury and kept in apposition by means of a leather splint, and the patient was allowed to move the arm as much as possible; but the movements of the joints were much restrained in consequence of the long time the arm had been kept at rest. In February, four months after the operation, there being no bony union, she was discharged from the hospital, in the hope that change of air, diet, and scene might excite more reparative action.

At the end of March she was again admitted with a false joint at the site of fracture, and after careful constitutional and local treatment without advantage, I again, on the 24th of May, drilled holes in the ends of the fragments, and inserted another peg. The wound slowly healed, and she left the hospital the following August. At this time there was still mobility at the site of fracture.

During the next six months, which she passed in the provinces, a few

small spiculæ of bone exfoliated through an ulcerated opening in the cicatrix. The arm was more and more used, and ossific union became by degrees completed.

In January, 1865, the movements of the member were only slightly restrained by trifling stiffness of the elbow and shoulder joints; and although, by forcible examination, it was possible to demonstrate imperfect bony union, still the patient was able to use the arm for all ordinary occupations.

In March, 1866, the member was as strong, useful, and nearly as well-shaped as the uninjured one. Bony consolidation was completely established.

ART. 197.—*Traumatic Aneurism of the Palm cured by Compression.*

By SYDNEY JONES, F.R.C.S., Assistant Surgeon to, and
Lecturer on Anatomy at, St. Thomas's Hospital.

(*The Lancet*, January 26, 1867.)

Rebecca S., aged twenty-nine, married, was admitted into the hospital on the 21st of June, 1866. On the 19th of the previous May, whilst opening a window, the sash of which gave way, she received a glass wound just below the front of the base of the right radius. The wound in the skin was transverse, and about three-quarters of an inch in extent. From it the patient herself drew a narrow pointed blade of glass, which had passed obliquely for a distance of nearly two inches towards the inner side of the palm. It had apparently gone through the annular ligament, and had wounded the dorsal side of the ulnar artery in its course to form the superficial palmar arch. At the time there was very extensive hæmorrhage, at first controlled with difficulty, but subsequently completely so, by a pad firmly applied, and forced flexion of the forearm. The wound was completely healed in about ten days. Mr. Jones saw her on the 21st of June, four weeks after the injury. There was then a scar, three-quarters of an inch in extent, above the wrist. On the outer side of the ball of the little finger there was a pulsating swelling about the size of a large walnut. The skin was thin, and the surface red and shining. Much pain was complained of in the palm, and along the ring and little fingers. The movement of these fingers was also much impaired. On pressure the sac was readily emptied, and the thumb might be passed without difficulty deeply into the palm, and beneath the annular ligament. Pressure on the ulnar above the wrist diminished, but did not completely control the pulsation; when combined with pressure on the radial all pulsation was arrested. Pressure on the brachial likewise arrested all pulsation. Forced flexion of the elbow did not seem to have sufficient control over the pulsation to induce one to trust to this treatment alone.

By means of a tourniquet, light pressure was kept on the brachial. A bandage was applied from the hand upwards, and cork pads were placed upon the radial and ulnar above the wrist. At the same time the forearm was flexed. At first, on account of the tension and redness

of the skin over the aneurism, it was thought inadvisable to use any pressure in the palm; but subsequently, when the redness had subsided, and the sac had become somewhat consolidated, a cork pad was placed also over the site of the aneurism.

Two days after her admission the treatment was interfered with, in consequence of her having to leave the hospital, on account of the death of her husband. She returned on the 29th of June, and treatment was resumed on the 30th.

July 7th.—No pulsation to be felt in the sac on removal of all pressure; sac consolidated and much diminished in size; slight œdema of hand. The tourniquet was then discontinued, but pads were kept on the radial and ulnar, as well as over the sac.

Pulsation did not return during her stay in the hospital, which she left on July 13th. About a fortnight afterwards a slight return of pulsation occurred from the use of the hand, but soon disappeared. To continue the pads until all the palmar swelling has subsided, and to keep the arm completely at rest. The bandage was worn until November.

Jan. 8th, 1867.—No trace of aneurism to be discovered—the movements of the fingers not in the least impaired.

(D) CONCERNING THE LOWER EXTREMITY.

ART. 198.—*Wood's Operation for Varicose Veins.*

(*British Medical Journal*, January 19, 1867.)

On the 12th of January, a man was operated on for varicose veins of the right leg, by Mr. Wood, by a new method, which consists in including the dilated vein between a needle in front and a double metallic wire behind. The needle and wire are introduced through the same openings, the latter first, and it is twisted as tightly as possible round the two projecting ends of the needle. Within two or three days, the wire works its way through the vessel. If by that time it have not done so, through a piece of fascia intervening, it may be untwisted and tightened again. In this instance the vein was operated on in two different places, at an interval of about an inch. Mr. Wood stated that all the cases which he had treated by this method had done well; he had never had to deal with troublesome sores, and in one case only had there been a small abscess in a man in low state of health; while he considered that it was a great point in favour of his mode of operating that it was not attended with any risk of hæmorrhage, an accident which he has known to occur after Mr. Lee's operation for varicose veins, in which the vein is divided between two ligatures. He added, however, that where there was a mass of dilated veins, as in the scrotum, for instance, Mr. Lee's method was preferable to his own.

ART. 199.—*On Spasmodic Contraction of the Muscles of the Hip without Articular Lesion, and its Differential Diagnosis from Hip-Joint Disease.*

By M. PHILIPPEAUX, Lyons.

(*Gazette Hebdomadaire*, No. 10, 1867.)

M. Philippeaux, in a paper read before the Société Impériale de Chirurgie, observed that muscular contraction may simulate closely true disease of the hip-joint, and he endeavoured to point out the symptoms which may assist the surgeon in making the differential diagnosis between these two affections.

The pains in hip-joint disease and in muscular rigidity have not the same locality, and differ very much in intensity. In hip-joint diseases the pain is seated in the joint, and is not superficial; it is increased by pressure upon the sole of the foot. In muscular contraction, it extends from the hip to the whole thigh, along the course of the affected muscles, its intensity is sometimes suddenly increased, and the patient cannot bear the least touch or examination of the limb; it is not aggravated by pressing the sole of the foot. In hip-joint disease, the skin is of a deep red colour, in muscular rigidity it is generally of a rosy tint. In hip-joint disease, the parts about the articulation are generally swollen and thickened by a soft impressible exudation; in muscular contraction the skin is in close contact with the firm unyielding muscles, and the gluteal muscles are not flattened, as in cases of morbus coxarius. In hip-joint disease the various symptoms follow one another in a slow succession; in muscular contraction the phenomena are presented suddenly. Hip-joint disease is generally met with in scrofulous patients, or in rheumatic individuals who have received some injury of the hip; contractions occur in nervous, hysterical, and anæmic patients, mostly in young girls before the age of puberty; disease of the spinal cord may also cause muscular spasm. If anæsthesia be resorted to, and the case be merely one of spasmodic muscular contractions, all deformity, displacement, and shortening of the limb will disappear, and the surgeon will be enabled to make out that the movements of the joint are unimpaired, and that they may then be performed without difficulty.

ART. 200.—*Extension Treatment of Fractured Femur.*

(*Medical Times and Gazette*, February 16, 1867.)

In the treatment of compound fractures where there is much displacement, and in the treatment of any fractures where there is much tendency to shortening, Mr. Simon has introduced a very simple mode of extension, at the suggestion of a Confederate Surgeon who was visiting St. Thomas's Hospital in the summer, and the plan has proved very efficacious. It consists in fixing a long piece of strapping on each

side of the calf, leaving a large loop beyond the heel, into which loop a small cross-bar of wood is placed. Extension is then made from this piece of wood by the ordinary pulley apparatus. By this appliance pressure on the foot is avoided, and sores are not likely to be formed on the heel or instep. The wounds, if any, can be dressed easily without removing the apparatus, and the condition of the limb throughout is always under view. Counter-extension is made by means of a perineal band.

ART. 201.—*Fractured Patella successfully Treated by the application of an Iron Ring.*

(*American Journal of Medical Sciences*, January, 1867.)

Dr. W. A. Gibson reports a case of transverse fracture of the patella thus treated. He took a measurement of the sound patella, and had a ring made of iron (allowing for padding), which he padded well with cotton wadding, cut into strips and wrapped around the ring, over which he applied a bandage. He then placed a well-padded splint twenty-four inches long to the posterior aspect of the leg and thigh, which was secured by a few turns of bandage at the lower and upper ends, the bandage being loose, so as not to interfere with the circulation. He next brought the two fragments of bone into apposition, and placed the ring around the patella, and tied the strips of bandage over the splint, thus securely holding the ring in its place, and keeping the broken bone always in complete apposition, thereby giving the greatest possible chance for a bony union. At the expiration of thirty days, he removed the ring, and commenced passive motion of the limb, and found the union to be bony and complete.

"The appliance," he says, "did not give the patient the least pain, and there was no interruption of the circulation by the bandages. It was impossible in this case for the patella to escape from the ring, but possibly in some cases, as of women, when there is a good deal of adipose tissue, and but little prominence of the patella, it may not be so easy to apply the ring; but I am persuaded that it will give entire satisfaction in all cases. I claim by the application of the ring to have reduced one of the ugliest fractures of the human frame to one of the simplest for treatment."

ART. 202.—*Complete Dislocation of the Patella outward, of long standing, with a perfectly useful limb.*

By Prof. Dr. A. LÜCKE, Berne.

(*Langenbeck's Archiv für Klinische Chirurgie*, 1867.)

A man aged forty years came under the notice of Dr. Lucke on account of a recent injury, and on examination there was found an old dislocation of the right patella outwards. The patient, when questioned

about the date of this injury, could give no account of it, he scarcely knew that there was anything wrong in the leg, for he was able to use it as well as the other. No weakness had been felt in it, it had not prevented him from walking, nor was it apt to give way. He has no recollection of ever having sustained any accident, or of having had when a child a useless limb. It may be concluded, therefore, that the dislocation was produced at an early period of life.

The position of the patella, when the limb was flexed, was such that the front surface was turned completely outwards, and the posterior surface rested upon the outer condyle of the femur, the bone was placed so far backwards, that almost one-half of the contour of the outer head of the tibia could be touched before the finger came upon its inner margin. When the knee was looked at from before, the patella could only be seen in profile upon the outer side of the joint. The ligamentum patellæ extended very obliquely from the bone downwards and inwards, its fibres were lengthened, but in other respects normal. From the softness of the integument, every part of the joint could be explored with facility, and the intercondyloid fossa of the femur was found to be very shallow. The femur as high as the centre of its shaft was felt directly under the skin uncovered by muscle. The quadriceps extensor had been displaced outwards, and was flatter and thinner than its fellow of the opposite side. The position of the leg when flexed was normal. The right leg could be extended as far as the left, and during this action the patella moved a little forwards and turned upon its axis, so that the inner margin looked half inwards. In this position of the limb, it was possible by forcible turning and pushing, to move the patella inwards over the front of the outer condyle; but on the slightest movement on the man's part it slipped back again. The leg, when in the extended position, was distorted, being rotated externally, so that the point of the foot was pointed outwards to a considerable extent. It was by the combined movements of outward rotation of the leg and inward turning of the patella, that extension of the right leg became practicable.

Remarks.—The case here described agrees almost entirely with those hitherto reported (especially those described by Malgaigne); only in this case the outward rotation of the leg was not a fixed distortion, since when the leg was flexed this movement was counterbalanced. The condition of the quadriceps extensor in old dislocations of this kind has not been noticed, but a similar result must occur ultimately in all cases.

ART. 203.—*Two Cases of Periodical Inflammation of the Right Knee-Joint; with Remarks.**

By CHARLES H. MOORE, F.R.C.S.

(*British Medical Journal*, February 2, 1867.)

Before detailing his cases, Mr. Moore referred to several examples of

* Abstract of a paper read before the Royal Medical and Chirurgical Society, January 8th, 1867.

transient local disease characterized by recurrence at regular intervals. In some of these, vomiting came on weekly for many years; in others, various inflammations of the throat, tonsils, eyes, &c., occurred daily at a regular hour. One case was that of a distinct quotidian ague of the arm, the rigor, heat, and stage of perspiration being marked in each fit. Most of these cases were cured by arsenic or quinine.

The first of Mr. Moore's patients was a woman, aged forty-three, who had had ague in girlhood and was cured. Eight years afterwards, at the end of a day of fatiguing work, she was attacked with inflammation of the right knee-joint, which increased till the third day and then subsided. Thirty days afterwards, a similar attack came on, and the inflammation was many times repeated at the same interval. From the third month of pregnancy to the third month of lactation, the attacks were quite interrupted. They then returned again, and when she came under Mr. Moore's care, they had continued eighteen years. The only difference in the early and later characters of the ailments was that nine instead of thirty days constituted the interval; but successive attacks recurred so punctually that they could be predicted almost to an hour. This patient was not cured.

The second case was that of a girl, aged twenty-one, who never had ague, but who was attacked with inflammation of the right knee-joint, after washing stone steps. The joint swelled, and on the third day was painful, and after that was well again. Twelve days from the attack, the whole local process was repeated in every particular, without any external occasion, and again an intermission of perfect health ensued. She had altogether nearly twenty attacks, but they were not always quite punctual to the day, and some occurred thirteen days, and one or two, eleven days from the previous one. Towards the subsidence of the disease, two attacks missed, and the interval was three times as long as usual. This patient recovered, apparently as the effect of quinine.

The first patient was under Mr. Moore's care only a short time, but he had the opportunity of witnessing three or four attacks. The second was under his observation during many of the attacks, and he was able to take precautions with a view to prevent their being feigned or artificially produced. In each case there was a movable body in the joint, and to it, possibly, the first onset of inflammation was owing; but the subsequent attacks were too precisely regular in their outbreak to be referred to any accidental cause; they were out of the date of the catamenia, and Mr. Moore expressed the opinion that they were in both patients of the nature of ague.

ART. 204—*Removal of Dead Bone from the Right Tibia.*

Under the care of Sir W. FERGUSSON.

(*British Medical Journal*, January 5, 1867.)

The subject of this case was a pale, scrofulous-looking boy, between twelve and fourteen years of age, who, in consequence of some injury to the fore part of his right leg, had become affected with extensive necrosis of the shaft of the tibia. The point of interest in the case is, that

the patient had, about six or eight weeks previously, been brought into the operating theatre, and an incision had been made down to the bone, although it was uncertain at the time whether the bone were denuded or not. Such a procedure would, as Sir W. Fergusson remarked, have been considered most objectionable—in fact, as opposed to all rule in good surgery—a few years ago; but experience had taught him, he said, that it was the best and wisest plan to pursue whenever, from concomitant circumstances, it could be inferred that there was necrosis of a bone. The rule used formerly to be, and still is with some surgeons, to do nothing, and wait until nature had loosened the dead bone completely, when it can be extracted. But Sir William maintains that, by so doing, time is allowed for such an amount of new bone to form that it becomes very difficult, nay, in some cases impossible, to get at the sequestrum; so that amputation of the limb has to be performed as a last resource, when the patient is worn out by the long continued and exhausting discharge which is kept up by the irritation caused by the retained sequestrum. The plan advocated by Sir William consists in cutting down to the diseased bone, and in dividing the periosteum, the bone-forming membrane, so as to prevent the dead bone from being completely encased in, or overlaid by, a mass of new bone. In the present instance, the risk attendant on delay was well exemplified; for new bone, still soft and spongy, and therefore easily removable, was already encroaching on a necrosed portion of the shaft, low down in the leg, which was not yet loosened so as to admit of removal. The piece of dead bone, which was taken away from about the middle third of the tibia, exhibited the well-known jagged irregular outline of exfoliated bone, with long angular projections.

ART. 205.—*Case of Spontaneous Fracture.*

(*Berlin. Klin. Wochenschr.*, No. 4, 1867; and *British and Foreign Medico-Chirurgical Review*, April, 1867.)

Dr. Caspary relates the following interesting case, occurring in the person of a short, strong, healthy man, twenty-six years of age:—In June, 1866, while ascending two steps which led to his dwelling, he felt a peculiar sensation in the left leg, as if unable to bear the weight of the body. He got indoors, however, and was even able to sit at table; but when he arose and attempted to walk, he cried out that he heard his leg crack, and that it was coming asunder. He could no longer stand, and was conveyed to bed. On examination there was found to be a transverse fracture of the tibia at the junction of its upper and middle thirds, with but little mobility, and no crepitation or displacement. The patient exhibited no signs of rickets, nor did the bone itself present any abnormal character. A gypsum bandage was applied, and the limb laid on a firm mattress. The patient lay very quietly, and without suffering; but when the bandage was removed, after three weeks, the limb remained precisely in the same condition. Under the advice of Dr. Wagner, assistant at Langenbeck's Clinic, the iodide of potassium

was administered, that surgeon having found it of great utility in several cases of fracture of difficult consolidation. In this case it proved of no utility, as at the end of another four weeks union had not taken place. A very thick gypsum bandage, which reached up above the knee, was now applied, and the patient was directed to walk about, which he was soon able to do tolerably well with a stick. In twelve weeks, and five months after the occurrence of the fracture, bony union had taken place. The most careful investigation of this case failed to show any general or local pathological condition capable of explaining the occurrence of the spontaneous fracture.

ART. 206.—*Gummatous Nodules of Syphilitic Origin,
developed in the Calves of the Legs.*

By CHARLES R. FRANCIS, M.B., late Officiating First Physician,
Medical College Hospital, Calcutta.

(*The Indian Annals of Medical Science*, January, 1867.)

The following case is a good illustration of syphilitic nodular development in muscle:—

“J. J., a native of Chili, and a sailor, aged thirty, was admitted into the Medical College Hospital on the 15th October, 1866, complaining of rheumatic pains in his legs, and ankle and elbow-joints. A week prior to his admission, he had observed two hard lumps in the calves of both his legs. Three years previously, he had a chancre. He was at once put under treatment for constitutional syphilis, and was ordered to take potass. iodid. gr. x, ter die. Iodine in tincture was applied to the ankles and front of the tibiæ, there being nodular developments in the course of the periosteum; but nothing was done locally to the tumours in the calves. These rapidly diminished under the influence of the constitutional treatment, and in a month were reduced to more than half their size.”

ART. 207.—*On the Treatment of Transverse Fracture of
the Patella.*

By HENRY J. TYRRELL, F.R.C.S.I., M.R.I.A., Surgeon to
Jervis Street Hospital, &c.

(*The Medical Press and Circular*, May 29, 1867.)

“The principal object of the present communication,” Mr. Tyrrell says, “is to describe a very simple, and what is of more importance to the patient, a very convenient and comfortable mode of treatment, as, during the treatment, it is not necessary to keep the patient for any

lengthened time on his back. It must be obvious, also, that in the old, when there is a disposition to congestion of the lungs and abdominal organs, any apparatus which allows them to sit up, turn from side to side, and be removed with ease from one room to another, is a desideratum.

"In the three cases in which I adopted the plan I am about to describe it answered admirably, particularly in a woman aged sixty, who was very delicate, and suffering from a severe attack of chronic bronchitis; although, in none of these cases did bony union take place, still the amount of separation did not exceed two lines.

"The apparatus consists of a long and thick pasteboard splint applied the entire length of the thigh, leg, and foot in the following manner:—

"As soon as the swelling about the knee has disappeared, and it is deemed advisable to apply any retentive apparatus, the leg and thigh being slightly raised, and the upper fragment of the broken patella being brought into its place by gently pressing the muscles of the front of the thigh downwards, I apply a strip of adhesive plaster, two inches broad, and sufficiently long to extend from the groin to the instep, and, while it is passed over the patella, the fragments should be accurately adjusted; the leg being still kept elevated, I roll a bandage from the toes upwards, and as soon as the knee is reached, before applying a figure of 8 around it, a semilunar wedge-shaped horse-hair pad, three inches broad and three-quarter inch thick at the base, should be placed immediately above the patella over the plaster, and the hollow of the ham carefully filled with cotton wadding. Then a figure of 8 bandage being applied so as to press the pad well downwards, the roller is continued up to the groin. I prefer rolling the thigh bandage in the way described to the ordinary method, from above downwards, as I believe it is less likely to be disarranged, and the elevated position of the heel, the figure of 8 round the knee and the plaster prevents the quadriceps muscle from acting on the upper fragment. The bandages being adjusted, I now take a piece of the strongest pasteboard, sufficiently long to extend from the great trochanter to the heel and twelve inches beyond, and of sufficient breadth to enclose three-fourths of the circumference of the thigh, knee, leg, and instep; and having thoroughly softened it in hot water (a convenient vessel for holding sufficient water is a hip-bath), as soon as it becomes sufficiently cool it is accurately moulded to the thigh, leg, and foot; and, in order to preserve its shape, a bandage is applied from the toes to the groin, and the heel is placed on a pillow. Next day the bandage being removed, the edges of the splint are neatly rounded off with a shoemaker's knife, and it is lined with a layer of fine cotton-wadding. The splint is now permanently applied and tightened by a bandage wound neatly from the toes to the groin, or if the weather is warm a few straps, such as are used in bracing up the sides of a box splint, will be sufficient. Finally, the leg is slightly elevated by placing a pillow under the heel. No danger of acting on the patella need be apprehended (as the whole lower extremity is one fixed piece) by the patient turning on his side or sitting up. If the bandages and splint have been properly adjusted it will not be necessary to stir them for a considerable time; indeed, in one case I only took them off three times during eight weeks.

"It will be observed that I place no pad beneath the patella for the following reasons:—

"1st. It is not required, as the lower fragment being not acted on by any muscle, has no tendency to be displaced.

"2nd. A pad so placed is almost certain to tilt the superior edge of the lower fragment upwards and forwards. No danger of interfering with the circulation of the circumflex-articular arteries can exist by the plan of treatment above described, as the bandage around the knee is not so tightly applied as to constrict them.

"If it is thought desirable (as I believe it is) to keep the knee fixed for a certain time after the patient is allowed to walk about, I know of no better splint for the purpose than can be formed by simply cutting the pasteboard of sufficient length to extend from the middle of the thigh to the ankle, and removing the foot-piece."

PART III.—MIDWIFERY.

MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN.

(A) CONCERNING PREGNANCY AND PARTURITION.

ART. 208.—*Ovarian Pregnancy: Delivery of the Fœtus per Anum: Perfect Recovery.*

(*Gesellschaft für Heilkunde.*)

A merchant's wife, aged thirty-five, of Berlin, was, as primipara, in 1856, safely delivered. In November, 1862, she had severe pain in the left hypogastric region, which showed an egg-shaped swelling. The catamenia ceased for nine weeks, but pregnancy was not made out. The patient was then seen by Dr. Hildebrandt, who made the diagnosis of a pregnant (?) uterus, without, however, being able to give a decided solution of the question. At the next consultation, an entirely normal pregnancy was diagnosed by one physician, and denied by the other. In the seventh month of pregnancy the patient took a great many laxatives on account of constipation of the bowels. In the meantime, Dr. Julius Beer was called in, who examined the uterus very closely, and gave the opinion that the woman was not pregnant, but that an abortion had taken place some time before. The tumour in the left hypogastrium he did not find. On January 2nd, 1864, after an almost colliquative diarrhœa, with very great pain, two symmetrical skull-bones, the parietal bones of a fœtus, were passed per anum. Pathological anatomy has shown that in such cases a sac is formed, which is united with a loop of intestine, whereupon this intermediate partition-wall is broken through to allow the bones to pass. The patient remains well, and without pain.

ART. 209.—*Prolapse of the Pregnant Uterus: Incision of the unyielding lips of the Os Uteri: Craniotomy, &c.*

By DR. BRESLAU.

(*Schmidt's Jahrbücher*, No. 11, 1867; *Monatsschr. f. Geburtsk.*, Bd. xxv.; *Supplem.-Heft*, 1865.)

The patient was a woman forty-three years of age, extremely deficient

in intellect. Eight years before she had been delivered of her first child by the forceps, and during the labour the perineum was extensively ruptured, the rent extending to the anus; an almost complete deficiency of the perineum and a recto-vaginal fistula were produced by this lesion. In the month of April, when pregnancy commenced, the uterus projected downwards in front of the external genitals, and was placed between the thighs, and it is stated that the prolapse of the uterus, or of its lower part, continued until the end of the period, and disappeared spontaneously, for the first time, at the beginning of the labour on the day before the patient's admission. The movements of the child were felt four or five days before commencement of the pains, which first began on November 29th; on November 30th the woman was received into the lying-in institution. In an examination of the external parts the summit of the uterus was felt about a small hand's breadth above the umbilicus. The position of the child could not be discovered from without, and no foetal sounds were heard. When a vaginal examination was made the finger came directly upon a large tumour, which was the head of the child pressed down upon the outlet of the pelvis; it was almost completely enclosed within the lower segment of the uterus, also forced downwards, and covered in this part by the wall of the vagina. The os uteri was seen and felt near the anus, it was of the size of a two-franc piece, and behind it could be felt the plicated hairy scalp of the child. The lips of the os were thickened and callous, particularly behind, and the os itself was consequently unyielding. As dilatation of the os uteri seemed to be almost an impossibility, in consequence of the altered condition of the parts, and as no change could be observed after long-continued watching, the following proceeding was taken for the purpose of preventing the occurrence of complete atony of the uterus, or of its permanent spastic contraction and rupture. Breslau transfixed with a curved needle the reflected portion of the vagina and the vaginal segment of the uterus, and on both sides of the anterior lip of the os uteri the needle was passed from above and in front, downwards and backwards. Two silver sutures were then passed through the punctured parts, and their long ends were pulled by an assistant. The portion of the os uteri between the needle-punctures was then cut through by an oblique incision, and afterwards five long incisions were made into its posterior surface. The presenting head of the child was then perforated, the brain was removed with the finger, and after the crushed head had been extracted with the forceps, the body and placenta quickly followed. After this the upper part of the uterus contracted favourably, but its lower segment hung down in loose folds as far as the external vaginal orifice. After the copious hæmorrhage had been arrested by cold water, the edges of the incisions were brought together by eight silver sutures, after which the cervix uteri hung down in the vagina in the shape of a cone. The depressed uterus was then pushed upwards, and kept in that position by a plug and bandaging.

No bad symptoms were presented after the operation; on the twenty-sixth day after delivery the sutures were removed, the incisions were completely healed, and the induration had almost disappeared. Fourteen days later Breslau operated on the recto-vaginal fistula, the edges were

vivified and brought into close apposition by three silver sutures; although the operation itself was successful, a cure did not ultimately result. Scanzoni's instrument was afterwards used for the prolapse of the uterus.

ART. 210.—*Case of Passage of Air into the Veins during Labour.*

By Prof. OLSHAUSEN.

(*Monatsschrift für Geburtskunde und Frauenkr.*; *Vierteljahrsschrift für die Praktische Heilkunde*, 1867.)

The patient was a multipara, aged twenty-eight years. She was in labour with twins; the progress was slow in consequence of the incomplete dilatation of the os uteri, which in twenty-four hours after the commencement of the pains, admitted the passage of only a single finger. The uterine douche was then applied, rather by way of trial than for any precise indication for its use. Water of the temperature of 30° R. was injected into the vagina by the usual apparatus. The condition of the os uteri persisting, the injections were repeated twice, and at the third time the douche was given by a midwife without any medical assistance; about eight minutes after the passing of the tube the patient complained of great pain; the tube was at once withdrawn; the woman raised herself up in bed, but immediately fell back senseless, panting for breath, and distorting the muscles of the face. Death occurred within a minute. The physician who was first called to the patient, felt, on placing his hand over the lower part of the abdomen, widely diffused crepitation.

The post-mortem examination presented the following appearances:—left side of the heart firm; the right side, on the contrary, was soft, and felt somewhat like a piece of intestine with thick walls. The coronary arteries contained a quantity of air-bubbles, which could be seen glistening through the visceral layer of the pericardium. The left side of the heart was empty, the right side contained a small quantity of very frothy blood. The uterus was of a dark reddish-blue colour and very large. At all parts of its outer surface crepitation could be felt on pressing it with the hand. Under the peritoneal covering could be seen a number of small vessels containing numerous bubbles of air interrupted here and there by accumulations and columns of blood. The right broad ligament of the uterus was distended with air, and this intercellular emphysema extended from the ligament through the retro-peritoneal fold as far as the inner border of the right kidney and reached nearly to the lower surface of the liver and the ascending vena cava, which vein was enormously dilated (being at the least an inch in diameter). When held to the light, large clear spaces of air could be seen separated by dark masses of blood. Small quantities of air were also present in a few veins of the lower extremities. The uterus was opened by a longitudinal incision in the middle line, as in the Cæsarian operation. One placenta was found situated on the left side of the front wall of the uterus, and below it was the head of the child. This placenta

was close to the incision, although not involved in it; its right margin, together with a small segment of the organ itself, was detached from the uterine surface. The placenta of the second foetus was situated on the right side of the posterior surface of the womb, it was in the greater part of its extent detached, and between it and the inner surface of the womb there was a regularly-shaped pouch. There was no effusion of blood. The membranes of both foetuses were uninjured and plentifully supplied with liquor amnii.

In this case death was undoubtedly caused by the passage of air into the bloodvessels, and this air was certainly first introduced into the veins of the placenta by means of the injection-pump. This accident most probably had been caused by the nozzle of the douche-tube having been inserted not merely into the vagina but into the cervix uteri, and thus air sucked up by the water was injected into the uterine cavity.

ART. 211.—*Two Cases of Laceration of the Uterus.*

(*Schmidt's Jahrbücher*, No. 1, 1867.)

1.—*Attempted Delivery by the Forceps: Escape of the Child into the Peritoneal Cavity.* By Dr. Werner.*—The patient, forty-five years of age, and the mother of four children, was about four years ago delivered of her last child with much difficulty by the forceps. On October 26th, 1858, in the afternoon, after the pains had lasted for fourteen hours, Dr. Werner was called in. The head was presented but placed obliquely, so that during the pains it was not forced towards the pelvic outlet, but into the right hypogastrium. At first the forceps could not be easily applied, and always slipped off when much traction was exerted. When they were at last firmly fixed the head could not be moved with the strongest exertions, and the attempt to use the blade of the instrument as a lever was also unsuccessful. The patient was now allowed to rest for a time, but soon afterwards she suddenly cried out "that something had given way in her inside," and then a large moveable body was felt in the upper two-thirds of the abdomen, whilst separated from this, the uterus could be distinguished in the left hypogastric region as a hard, round ball of the size of the foetal head. The uterus had undoubtedly been ruptured, probably in consequence of considerable contusion produced by the forceps; and the child had, during a pain, been expelled into the abdominal cavity. Dr. Werner did not perform the Cæsarian operation, as the child was not alive. On the following morning the mother died.

On post-mortem examination a rent was discovered in the front part of the cervical portion of the uterus. The posterior wall of the uterus was so much thicker than the anterior one, that a fibrous growth was believed to be present there.

2. *Spontaneous Rupture of the Uterus.* By Senfft.†—the patient, thirty-eight years of age, had been delivered naturally of eleven living

* *Ztschr. f. Wundärzte u. Geburtsh.* xix. 2, 1866.

† *Wärzb. Med. Ztschr.* vii. 1866.

children; but at each confinement some pain had been felt in the region of the symphysis pubis. The last pregnancy had proceeded favourably up to the 20th of September, 1865, when, at seven in the morning, the liquor amnii was discharged without any previous pains. These, however, soon came on, but the woman continued to perform her domestic duties. At nine o'clock the midwife found the os uteri dilated to the size of a crown-thaler, and the head of the child was felt in the first position. In the course of the labour pain was again felt in the symphysis pubis. At ten o'clock severe pain suddenly attacked the abdomen, especially on the right side, and it radiated to the upper part of the thigh. The labour-pains at once ceased, the patient became very pale, and had repeated fainting fits; the face and extremities also were cool. The form of the lower part of the abdomen was much altered; between the navel and the symphysis it was drawn in, and above and on both sides of this depressed portion it was arched forwards.

The seat of this depression was very painful; here could be felt on pressure the elbow of the child; and under the globular abdominal swelling on the right side, the buttock. On the left side there was obscure fluctuation, whilst directly above the umbilicus the feet could be indistinctly felt. Fœtal heart sounds, and uterine souffles could not be heard. On examination by the vagina the head was felt in the first position, it could be moved upwards by a moderate pressure of the finger; but this brought on copious hæmorrhage. As soon as the pressure ceased the head returned to its former position, and the bleeding was diminished. There was no swelling on the head of the child. The vaginal examination did not cause pain. The woman became worse, the extremities and face were cold and covered by perspiration; pulse was very small and frequent, the mucous membrane very pale, and there was much anxiety with restlessness. The labour-pains did not return—the symptoms of internal hæmorrhage increased in intensity. Ether and hot wine were administered internally, cold was applied to the abdomen, and the extremities were enveloped in warm flannel. The case was undoubtedly one of rupture of the uterus; Cæsarian section was not performed, as the child was not living, and the mother was so near death. At three o'clock in the afternoon convulsions came on, and the woman soon succumbed.

Autopsy, twenty-four hours after death.—Much gas was given off whilst cutting into the abdomen. As soon as the cavity was opened, the back of the child was seen, the buttocks were on the right side, the feet in the centre; and below these, at a part corresponding to the depression of the front abdominal wall, was the right elbow; the membranes and the placenta filled with blood and coagula, were placed in the left hypochondrium. The womb, as large as a man's head, contained a quantity of coagulated blood and the head and left arm of the fœtus, which was enclosed by the lips of a rent which existed in the anterior wall of the organ. In the peritoneal cavity there was a quantity of blood, both fluid and coagulated. The rent extended from above, on the right side, downwards and to the left into the cervix, its lips were jagged, and, together with the cellular tissue, were stained with blood. The uterine tissue at the fundus was thick, but in the

front wall, and especially at the lower third, it was very thin. The place of insertion of the placenta was high up on the right side. On examining the tissue of the uterus under the microscope several patches of fatty degeneration were discovered.

The cause of the ruptured uterus in this case was due to the extremely uneven development of the substance, evidenced particularly by the thinness of its anterior wall, and to the fatty degeneration of the uterine tissue.

ART. 212.—*Case of Rupture of Uterus and Vagina.*

By JOHN BRUNTON, M.A., M.D.

(*Glasgow Medical Journal*, January, 1867.)

Rupture of the uterus is an event that fortunately is not often met with in private obstetric practice. When it does happen, it is a lamentably fatal occurrence both to mother and child. More so to the former when the rupture is large, and through the uterus, vagina, and peritoneum.

The following case is interesting on account of the comparatively short labour, extent of rupture, and the duration of the mother's life after so serious a lesion:—

"On Saturday morning, November 10, 1866, at 11.30," Dr. Brunton says, "I was asked by Mrs. B., midwife to the Royal Maternity Charity, to deliver by forceps Mrs. G., who had been in labour about twelve hours.

"The reason assigned to me for instrumental delivery was, that the head of the child was at the outlet, resting on the perineum, had been so for some time, that the regular labour-pains had gone off for an hour or two, but were succeeded by a continuous and severe pain in the abdomen.

"Having some urgent cases to attend to, I said that after I had visited them I would come and bring my forceps. She went back immediately to wait with the patient until I came. On my arrival at the house at 12.15, I found the midwife present, who stated that no progress was being made, but quite the reverse, and that there was some discharge of blood per vaginam. On examination, I found the os uteri completely dilated, the liquor amnii drained off, the head of the child presenting at the brim of the pelvis, instead of at the outlet, as stated. On inquiring again, the midwife stated positively that the head was at the outlet at 9 A.M., and up to the time of her coming for me (11 A.M.).

"On account of the discharge of blood (fearing placenta prævia) I searched for the placenta, but could not find it. On examining the abdomen I found it very tender to the touch, and relaxed, the uterus and child lying down and forward over the pelvic brim, as if there was anteversion of the uterus. But more careful manipulation made it manifest to me that the limbs of the child were too easily felt through the abdominal wall. I then examined the mother, whom I found pale,

flabby, weak, pulse 56, of moderate force. She lay on her left side, still, and groaning often with pain, which she said was continuous. She had not been sick.

History.—She was thirty-four years of age, had had thirteen children, this being the fourteenth. Nine had been born at the full time, and four at six or seven months. She had always had lingering labours. All had been natural, none requiring instrumental or other aid.

"During present pregnancy she had had no pain, rigors, fever, or any particular disease—only she did not feel as strong as usual. For three weeks she had symptoms of approaching labour, with vaginal discharge of a brownish colour, and watery, but no regular labour-pain until the night previous, when she sent for the midwife, who visited her, but did not deem it necessary to wait. Labour went on gradually, and at 4 A.M., while standing at the bedside, she had a severe tearing pain, which made her scream out and feel faint; she then got into bed, and at nine o'clock sent again for the midwife.

"Taking into consideration, 1st, the recession of the head; 2nd, the cessation of labour-pains; 3rd, the discharge of blood; 4th, the state of the abdomen, and the easy discernment of the child; 5th, the state of the mother (faint, &c.); I came to the conclusion that there was rupture of the uterus, and escape of the child into the abdomen. Having ordered some brandy and milk to be administered, I sent for Dr. Hall Davis, who came about 2 P.M., and soon confirmed my diagnosis by introducing his hand into the vagina, where he found a head presentation at the brim of the pelvis, and, by passing his hand further, discovered a large rent in the centre part of the uterus. As the head presented, an attempt was made to use the long forceps, but only one blade was applied and then withdrawn. It was deemed better to turn the child. Dr. Davis did so, removing the placenta first, which came down through the rent into the vagina. The child, a male at eight months, was dead, and had a considerable caput succedaneum.

"Dr. Davis found the bowel (which he returned into the abdomen), within the uterus. Pulse, 72. Skin clammy. Was ordered—laudanum (℥ L), brandy, milk, and beef-tea; and to be kept perfectly quiet.

"At 3.15.—Pulse, 56. Treatment as before.

"At 5.—Pulse, 60. Respiration, 25, quiet; no pain or bleeding. The same treatment continued.

"At 9.—Ditto.

"At 11 o'clock on the following day the pulse was 85. Respiration, 25. Treatment continued.

"At 12.30.—Pulse, 100. Respiration, 30. Skin warm and moist; can converse well. Abdomen tympanitic; lochial discharge moderate. Catheter to be used.

"November 12, at 12 o'clock.—Condition the same as yesterday. No vomiting or distress.

"At 3.—Pulse, 116. Respiration, 25. Enema of soap and water to be administered to relieve bowels.

"November 13.—Much in same state, though weaker. Enema acted well.

"6 P.M.—Sinking, pulseless. Continued gradually to sink, and died at 3 A.M., on the 14th, having lived three and a-half days after delivery.

*“Post-mortem Examination—*Thirty-six hours after death:—Externally no signs of decomposition; the abdomen (the only region examined) much distended. Bowels distended with flatus, and red in colour, covered over with recently effused lymph, and signs of peritonitis very abundant. Uterus contracted, and in its natural position. Bladder empty.

“A large longitudinal rent, about six inches long, was found on the posterior and right side of the uterus, commencing at its middle, and extending down through the cervix and upper portion of the vagina—edges ragged and softened. Only a small quantity of blood was present in the abdomen, in the immediate neighbourhood of the uterus. The rent was large enough to admit the hand easily, which could be passed down from above into the vagina. The placenta was healthy, with the exception of a little calcareous deposit on the uterine surface.

“The child appeared to have but recently died.”

ART. 213.—*On Incomplete Abortion.*

By Prof. BRESLAU.

(*Wien. Med. Presse*, vii. 1866; *Schmidt's Jahrbücher*, No. 1, 1867.)

By incomplete abortion, Professor Breslau means that form of premature loss of the ovum in which a part of it only, and not the whole is expelled, the remaining portion being retained within the uterus for an indefinite period of time. Cases have been observed where incomplete abortion occurred during the early weeks of pregnancy, and up to the time of the formation of the placenta, and in which a part of the ovum remained behind for a period of time extending over not only hours and days, but weeks, and even months.

The most important symptom of a case of this kind is hæmorrhage, which may present itself either before or at the commencement of the abortion, or some time afterwards. After the expulsion of the ovum bleeding may still go on and persist for months, or it may reappear after long intervals; it is seldom very excessive, and is in most instances either unheeded, or passed over as a profuse menstruation. The next important symptom is a muco-purulent, or muco-sanguinolent discharge from the genitals, which sometimes contains shreds and pieces of membrane, and has a putrid odour. At a later period slight labour-pains are experienced by the woman, and frequently a sense of weight in the pelvis, due to pathological changes in the uterus. Finally symptoms of septicæmia or pyæmia may present themselves. The diagnosis is generally difficult; as the previous existence of pregnancy is often denied, and an examination of the uterus can alone give satisfactory information. Enlargement of the organ can be made out by external examination of the abdomen in those cases only where the abortion has taken place between the second and third months of pregnancy, or later. A combined internal and external examination is generally requisite for the determination of the position and size of the uterus. In some

cases, on making a vaginal examination the surgeon may find the os uteri and the cervical canal so patent as to admit with ease one or two fingers, with which the spongy and broken-down remains of the ovum can be felt near the os uteri internum. These are probably cases in which the pregnancy was interrupted, at a late period of its course, after the formation of the placenta. In some cases, however, it is only just possible to pass the finger with great difficulty into the uterus, and even then the further examination is rendered very difficult by the elevated position, and by the mobility of the organ. Breslau, in the presence of such difficulties acts in the following manner: applying one hand over the lower part of the abdomen, he endeavours to press down the uterus over the point of the middle finger of the other hand, which he introduces into the vagina and endeavours to pass through the cervical canal. If this plan be unsuccessful, he draws down the vaginal portion of the uterus as far as is needful; and if the os uteri and the cervical canal be found too contracted to admit the finger, he then generally inserts a cone of laminaria (stem of the sea-tangle) or of compressed sponge as far as the os internum, for the purpose of producing artificial dilatation. The laminaria is allowed to remain from six to twelve, the compressed sponge for eighteen hours, and after the removal a digital examination is again undertaken. But even after this proceeding the result of the digital examination will sometimes be doubtful. The uterus may be irritable and contract spasmodically on the introduction of the finger, or the remains of the ovum may be placed so high up as to be only just within reach, so that the surgeon may begin to doubt whether he has not to deal with a uterine polypus, or a fibrous tumour. The only thing to be done in such circumstances is to pass up a pair of dressing forceps by the side of the finger, and to pluck off from the body some small pieces, which should be put under the microscope for examination. The most decisive test is the presence of chorion-tufts; for reliance cannot be placed upon the appearance of remnants of decidua alone, since these may exist also in cases of dysmenorrhœa membranacea.

Breslau does not rely much upon internal remedies in the treatment of incomplete abortion. *Secale cornutum* is useful only in recent cases, or when the remains of the ovum lie loose in the uterine cavity; hæmostatics, also, can give but temporary relief. The essential indication is the removal of the rest of the aborted ovum, and this should be undertaken as soon as the diagnosis has been made out. If the index and middle finger can be passed together through the cervical canal, the surgeon may at once succeed in relieving the uterus, provided that this organ be pressed downwards by the other hand placed over the hypogastric region. When only one finger can be inserted, and when this after being pushed through the os internum cannot find any space to work in, or when the remaining portion of the ovum is situated at the fundus of the uterus, Breslau introduces over the finger a pair of dressing forceps about twenty-three centimetres in length, and with this removes the loose body by continued movements of twisting and dragging. But it is not always possible to work with finger and forceps together within the uterus, and then Breslau incises the lips of the os internum. The effect of the operation upon the hæmorrhage is very striking. The

other symptoms also soon disappear; and Breslau has never known metritis or peritonitis to follow.

His after-treatment consists in keeping the patient perfectly quiet, and in ordering an infusion of secale with sulphuric acid and cold uterine douche. After a few days he administers steel.

ART. 214.—*Five Cases of Spontaneous Version.*

By Dr. V. FRANQUE.

(*Wien. Med. Presse*, vii. 1866; *Schmidt's Jahrbücher*, 12, 1866.)

CASE 1.—In a multipara who had just been delivered of a live child with a head presentation, a second fœtus was found to be present, the left shoulder of which could be felt. During the preparations for turning strong pains came on, the shoulder was withdrawn, and the buttock presented. The membranes were ruptured, and the child expelled; it was in a very feeble condition, and died within a short time.

CASE 2.—In a woman who had had four children the left arm was first presented. When Franque arrived, some hours later, the buttock was found projecting from the os uteri. In consequence of the slow progress of the labour extraction by the forceps was necessary. The child came into the world alive. The woman died in child-bed from endometritis.

CASE 3.—In this case also there was a shoulder presentation, with descent of the arm and funis; this condition was converted by spontaneous version into an imperfect foot presentation. The child was dead.

In the last two cases the report of the midwife on the original presentation was confirmed by the appearances presented by the arms after birth. These cases also prove, that spontaneous version may be accomplished after the membranes have been ruptured.

CASE 4.—In a primipara there was a cross presentation, the membranes were intact, and a hand and an elbow could be felt. For five hours the pains were tolerably strong, although the os uteri was not sufficiently dilated for turning. When the membranes were ruptured both feet could be felt presenting; normal foot presentation. The child was alive.

CASE 5.—In a multipara a lateral placenta prævia was discovered, and near it the back and projected arm of the fœtus. The hæmorrhage was not excessive, and the pains were strong. The vagina was plugged. Half an hour later, when the plugs were removed, there was an imperfect breech presentation. The labour was slow, manual extraction was resorted to, and the forceps applied. The child lived.

In three of these cases spontaneous evolution was doubtless favoured by the spaciousness of the uterine cavity; also in the case of twins by the large amount of liquor amnii. In two cases it appears to have been

brought about by the extreme dilatation of the lower segment of the uterus, which is so often found in multipara.

ART. 215.—*On Hydatidiform Degeneration of the Fœtus.*

By JOHN K. SPENDER, M.B. Lond., Surgeon to the Eastern Dispensary, Bath.

(*Medical Times and Gazette*, March 23, 1867.)

Dr. Spender relates the following case which came under his observation a few years ago:—

"On Sunday afternoon, June 21, 1863, I was asked to visit a young married woman supposed to be in labour at the full term, whose medical attendant (Mr. Chilton) was otherwise engaged at the time she required his services. On visiting her I found that a copious flooding was going on, and a vaginal examination led me to imagine that I had to deal with an ordinary illustration of placenta prævia. I plugged the vagina with the best material at hand, ordered the patient an ample supply of nourishment, and promised to call again in an hour. Within that time I was again summoned, and found that the renewal of the flooding had forced out the plug; but a fresh examination did not lead me to alter my diagnosis, and I handed the case over to Mr. Chilton at this moment as an undoubted example of placental presentation. I was obliged to leave altogether, in order to attend an urgent medical case, but I gave a warning of danger to the husband before departing from the house.

"At ten o'clock the same night I learnt that the woman was dead. I went down to the house once more, and there the following particulars were told me:—Soon after I left in the afternoon Mr. Chilton discovered that the case was not one of placenta prævia, and that there was about it something altogether unusual. He was unable to arrest the flooding, and therefore he sought the help of a highly skilled obstetric friend. To empty the uterus of its contents, whatever they were, was a clear necessity, and with much labour this was accomplished. A large chamber-vessel was filled with hydatidiform substance, which was kept for my inspection. Death appeared to have resulted from shock and from the exhaustion produced by loss of blood. Everything was done for the patient that obstetric science could devise.

"It is possible that if this woman had been examined in the last month of pregnancy with special reference to hydatidiform degeneration of the ovum, a refined diagnosis might have announced the fact. The principles of this diagnosis are well given in Dr. Tyler Smith's text-book of midwifery, but any practitioner may be forgiven for being unprepared for a pathological emergency which is happily so rare."

ART. 216.—*Concealed (almost entirely) Accidental Hæmorrhage at Full Term: Forceps: Post-Partum Hæmorrhage arrested by Ether Spray externally: Recovery.*

Under the care of Dr. BRAXTON HICKS.

(*The Lancet*, February 19, 1867.)

It was a noticeable feature in this case that the pulse was not at all increased in rapidity till the child's head was at the vulva, when it rose to 120 per minute, as might have been anticipated in cases of blood-loss, and at which rate it continued for some days. Dr. Hicks remarked that this was in keeping with what he had suspected in other cases—viz., that the extreme severity of the symptoms was greatly owing to the impression made upon the nervous system by the great tension of the uterus; in one case noticed by himself the peritoneal coat had been actually cracked. The effect of the ether spray was exceedingly good; as an elegant mode of producing external cold, it commends itself at once, to say nothing of the readiness and certainty with which it can act.

Mrs. D., aged twenty-one, primipara at full term. Having been busy washing the day before, she was taken at eight A.M. with a slight loss of blood, which soon stopped. At nine A.M. she was seen. The os uteri was not larger than a shilling, and the uterus seemed to be acting slowly. The pulse was then natural. As time advanced she became weaker; and was in a state of syncope at eleven A.M., with restlessness and marked pallor. This continued till half-past twelve, when Dr. Hicks saw her. The os was then the size of a five-shilling piece, thin, and dilatable. The head of the fœtus was pressed down firmly into it. The fundus of the uterus was large, tense, and firm. Much distress was evinced by the patient, with jactitation. The pulse was then about normal in beat, but weak, and on two or three occasions during the morning it had been nearly imperceptible. No bleeding externally was then going on. The membrane had ruptured two or three hours before. Dr. Hicks considered that there was a large clot retained at the upper part of the uterus, which was distending it, and pushing down the fœtus. He thought that with frequent stimulants and support she might be left without interference till the full expansion of the os uteri, upon the occurrence of which he advised employing the forceps gently to assist the uterus, now over-distended, and thereby enfeebled. This was done; and in about three hours, as she seemed improving, it was thought possible she might get through without assistance. However, no great progress ensuing, the resident obstetric clerk, Mr. Harwood, applied the short forceps, and employing gentle help, the child was soon born. A great quantity of blood and several large clots followed. Pressure was applied to the uterus throughout, and the placenta followed, with another large clot attached to its margin. The uterus then contracted well, but speedily relaxed. Hæmorrhage reap-

pearing, cold was applied externally by the *ether spray*. The uterus instantly contracted, and so continued.

ART. 217.—*A Case of Retention of the Placenta.*

By A. WOOD SMITH, M.D.

(*Glasgow Medical Journal*, January, 1867.)

Dr. Smith places on record the following case of premature labour at the sixth month, in which the placenta was retained for thirty-four days, and then almost spontaneously expelled.

"*History*.—Mrs. M. first consulted me on the 16th July, 1866, regarding her general health, which was in a very low state. She suffered occasionally from floodings, had colliquative sweats, &c.; but her anxiety about herself arose chiefly from having had a miscarriage at the sixth month of pregnancy, a month previous to seeing me, and she was afraid that the after-birth was not removed. She felt a swelling above the symphysis pubis, had pain over the sacrum, and was troubled with a frequent desire to micturate. The floodings came on while she was quiet in bed, and a few days before seeing me she had a very severe one, and experienced slight bearing-down pains.

"As the miscarriage occurred hurriedly, a woman was called to her assistance, who professedly removed the placenta by introduction of her hand.

"Mrs. M. is the mother of three children; the youngest was sixteen months old at the time of her miscarriage, and she only weaned him a few days before that happened. After the period of quickening, at the end of April, she lost more or less blood, almost daily, on rising out of bed; these hæmorrhages were unaccompanied by pain, but the severer ones were preceded by rigors. No fœtal movements were felt for a fortnight before the miscarriage, and the female attendant considered the fœtus had been dead for some time. Mrs. M. always felt the swelling in the left groin after her delivery. She appeared to me to be suffering chiefly from loss of blood, so I prescribed some quinine dissolved in the tincture of perchloride of iron. On the following day I examined her *per vaginam*, when I found the os uteri high up, and tilted towards the promontory of the sacrum, and the os internum firmly contracted.

"There was ante flexion of the uterus. The frequent desire to micturate which she experienced might in part be caused by this.

"On gently introducing the uterine sound I found that it met with some resistance at about an inch beyond the os externum, and this I considered might be either by a clot, a portion of the placenta, or a polypus; but on account of Mrs. M.'s enfeebled health, I resolved for the time not to make any further exploration by dilating the os or otherwise, and recommended a continuance of the quinine and iron mixture, and the employment twice a-day of vaginal injections containing a solution of alum.

"Three days after this, at 2 A.M., I was hurriedly summoned to

Mrs. M., owing to another flooding having come on. I found she had lost a considerable amount of blood, and the hæmorrhage was still going on slightly. On examining I found the uterus had regained its normal position, that the cervix was so dilated that I could pass the fore-finger, and feel a soft mass protruding through the inner os. After effecting some slight further dilatation by means of two fingers, I administered ergot, whereupon strong uterine action was set up, during which I endeavoured to assist the expulsion of the mass, but without much effect. Thereafter, the uterine action becoming less and the patient weak, I plugged the vagina through a speculum, gave an opiate, and obtained the advice and assistance of my friend, Dr. J. G. Wilson. On his removing the tampon, six hours after its introduction, the placenta was found lying in the vagina, the uterus well contracted, and normal in position. I syringed the vagina, first with tepid water, then with cold, re-introduced the tampon, and administered an opiate. There was no subsequent hæmorrhage, and the patient has made a good recovery.

"The placenta was of firm texture, and having neither signs of decomposition, degeneration, nor absorption. It was three inches in diameter, and about five ounces in weight; the umbilical cord had been detached."

This case, Dr. Smith considers, is chiefly instructive, as illustrating the comparative harmlessness of a placenta being retained in utero for even thirty-four days; and the efficiency of natural efforts in its expulsion without the aid of more forcible, and possibly more injurious, measures. The freshness of the placental mass was also an interesting feature of the case.

ART. 218.—*Puerperal Convulsions after Delivery: Recovery: with Clinical Remarks.*

Under the care of Dr. GRAILY HEWITT.

(*British Medical Journal*, January 30, 1867.)

We are indebted to Mr. T. T. Hughes, Obstetric Assistant, for the following report:—

Mrs. H., living in Little Drummond-street, applied for a maternity letter on the 26th November, 1866. Her age was thirty-one. She is the mother of seven children; she had had no miscarriages. The catamenia were last seen in April, 1866. She was a delicate anæmic-looking woman. She had a severe attack of typhoid fever in the latter end of last summer, being then about five months pregnant, which considerably reduced her; and since that she had had no appetite, scarcely ever eating meat. But with all this she reached her full time. Her former labours had been natural.

Jan. 13th, 1867.—The patient had all this day slight labour-pains, but they became more decided at 11 P.M., when she first sent for assistance. About 3 A.M. the following morning (Jan. 14th), the membranes became ruptured, the liquor amnii escaped, and hæmorrhage immediately

occurred to a very great and dangerous extent. The nurse says: "So great and sudden was the flow of blood, that the floor was literally covered." About 4 A.M., the child, which was alive, was born; and the placenta soon followed, without any further hæmorrhage. The patient went on very well up to 8 A.M., when headache, retching, and blindness came on. These symptoms became worse, and lasted till 2 P.M., when an attack of convulsions occurred. The fit was epileptic in character. At first there was a quivering of some of the facial muscles; then the whole body became convulsed, and immediately afterwards completely rigid; the face unnatural; the lips livid. She foamed at the mouth, blood being mixed with the foam, from the tongue having been bitten. Then a long inspiration, and the attack was at an end. These fits recurred very frequently up to 9 P.M. She had had fourteen in all. Mr. Hughes saw her at this time, and had the opportunity of observing one of these fits. The lochia were suppressed. It was with great difficulty that she could be made to understand and do what was told her. She passed her urine involuntarily; swallowed with difficulty. Cold was ordered to the head; and ten minims each of liquor opii sedativus, chloric ether, and compound tincture of lavender, every four hours.

January 15th, at 1.30 P.M., Dr. Graily Hewitt saw her, and found her completely insensible; uterus well contracted; lips dark; no stertor; and the fits still recurring occasionally. He ordered ice to the head; a binder to be tightly applied over the uterus; and enemata of beef-tea, eggs, and brandy, every two hours.

Jan. 16th.—Dr. Graily Hewitt found that there was hemiplegia of the left side; pupils about equal, medium; patient in much the same state as yesterday. Mustard sinapisms were ordered to be applied to the nape of the neck three times a day; the enemata, &c., to be continued.

Jan. 17th.—She was much better; occasionally opened her eyes and looked about; and when a teaspoonful of wine was put on her tongue, it was swallowed with an effort. The same treatment was continued.

Jan. 18th.—She was improving; was becoming more conscious; swallowed pretty well. She talked reasonably for a short time, but soon began to wander. The brandy, eggs, &c., were taken in good quantity. The mustard poultices were ordered to be continued.

Jan. 19th.—She was decidedly better. She knew all around her; asked after her baby; ate and drank everything she could get. Hemiplegia was completely gone. She said she had slight headache.

Jan. 20th.—She complained of nothing, but felt exhausted.

Jan. 22nd.—She was going on well. The urine was examined, but no albumen could be detected.

Jan. 23rd.—She was seen by Dr. Graily Hewitt. The pulse was strong; her appearance quite natural. She ate well, but was very weak, and there was very little or no milk.

Dr. Graily Hewitt remarked, that the case now related presented several interesting features. The convulsions came on very shortly after delivery, in a woman previously very much debilitated, first by an attack of typhoid fever four months ago, and secondly by an extremely copious loss of blood, which occurred one hour before the child was born. The view he took of the case was, that the convulsions were due to the loss of blood. The brain was drained, so far as such draining

is physically possible; and the impoverished condition of the blood favoured the escape of the serum into the serous cavities of the brain, inducing blindness, retching, gradual loss of consciousness, convulsions, and coma. The transient hemiplegia showed that the effusion was greater on one side of the brain than the other. The convulsions occurring in connexion with the puerperal state were not to be regarded as essentially different from convulsions occurring under other circumstances, though undoubtedly they were much modified by other special conditions then present. Very frequently the renal secretions were altered, and there was albuminuria, with presumed retention of urea in the blood. In the case above related, the urine could not be tested for albumen at the time; and it might have been present in this case, though absent when urine was obtained for examination a week later. Dr. Graily Hewitt related that he had directed the treatment, which had proved so successful in this instance, solely with regard to the anæmic state of the patient, believing that the indication was to restore the loss of blood as quickly as possible. The patient could not swallow; and the enemata of brandy, egg, &c., which were frequently administered, proved of the greatest assistance. The counter-irritation appeared also serviceable.

ART. 219.—*Notes of a Case of Difficult Labour, due to Displacement of the Child's Arm.*

By W. S. PLAYFAIR, M.D., M.R.C.P., Assistant Obstetric Physician to King's College Hospital, &c.

(*British Medical Journal*, February 23, 1867.)

Dr. Playfair relates the following case:—

At 6 A.M., on January 10th, 1867, I was summoned to attend on Mrs. H., an out-door patient of King's College Hospital. I found that she had been in strong labour since the previous afternoon, when the membranes had ruptured. She was the mother of four children, all of whom were born alive; but her previous labours had been difficult and tedious. During the eighth month of pregnancy, she had had a severe attack of choleraic diarrhœa, which had greatly reduced her strength, a circumstance which probably accounted for the bad state in which I found her. The pains had been regular, strong, and forcing; and, the head being the presenting part, the gentleman in attendance anticipated a speedy delivery. The head progressed until it reached the floor of the pelvis, but it became arrested there, and made no further progress, although the pains continued strong and steady as before. Mr. Harding, the resident accoucheur, was sent for about midnight, and found that the head was in the third position, the anterior fontanelle being behind the left foramen ovale. By this time constitutional symptoms had arisen, calling for immediate interference. The pulse was 130, small, and feeble, the tongue was dry and black, and the comparative rapidity with which these unfavourable symptoms had shown themselves, was doubtless owing to the previous illness of the patient. Mr. Hard-

ing applied the forceps, but failed to move the head. He then requested Dr. Penn to see the case with him, who also made an unsuccessful attempt at delivery with the forceps. When I saw the patient, she was in a state that left no doubt as to the necessity of immediate interference. I found the anterior fontanelle behind the left foramen ovale, but on a lower level than the posterior. The margins of the orbits, and the root of the nose, were easily within reach of the finger. I therefore concluded that the cause of difficulty was the faulty position of the head, due to the want of flexion of the chin on the sternum. Dr. Leishman has well shown, in his work on the *Mechanism of Parturition*, how effectually such a malposition prevents rotation in occipito-posterior positions, and I saw no reason to doubt that it was the cause of the delay in this instance. As the forceps had already been tried, and had failed to move or rotate the head, I determined to resort to the practice so strongly recommended in similar cases by Dr. West, of Alford, and to attempt rectification of the malposition by means of the vectis. I accordingly passed it over the occiput, which I attempted to draw downwards, while upward pressure was made at the same time in front of the anterior fontanelle. The head, however, seemed firmly fixed, and no efforts that I felt justified in using had any effect in moving it. I then introduced the forceps, and met with the same want of success as my predecessors. There was no resource but craniotomy, for the patient's condition admitted of no further delay; and I had the less hesitation in resorting to it, as the fœtal heart was inaudible.

I accordingly perforated, anticipating that there would be no further difficulty when the brain was broken up so as to allow the skull to collapse. To my great surprise, however, the head remained as immovable as before, nor could I succeed in drawing it down with either the craniotomy forceps or the crotchet. Passing the finger as high as possible all round, I failed to make out anything which could account for this. It was evident, therefore, that there was some obstruction higher up, which was necessarily on the part of the child, as the pelvis was of ample size, and the patient had previously given birth to living children. I next proceeded to break up the calvarium as much as possible, leaving the bones within the scalp, and then, by traction on the orbits, which were easily within reach, brought down the face; as soon as I had succeeded in doing this, the head was expelled in two pains, and I found the child's arm displaced on the back of the neck in the manner described by Sir James Simpson.

It was evident that the obstruction had been caused by the arm being firmly caught on the brim of the pelvis, and lessening the head did not suffice to overcome the difficulty, because it did nothing towards dislodging the arm. As soon, however, as the face was brought down, the arm must have been pushed up by the ascent of the occiput, and the obstruction thus removed. Had the usual flexion of the head existed, I should doubtless have been able to feel the malposition of the arm; but, as it was, the faulty position of the occiput prevented the finger from reaching high enough to touch it.

When the diagnosis of such a case is made out, it would, in all probability, be sufficient to bring down the arm by the side of the head to insure natural delivery. This would, at least, prevent the possibility

of the arm hitching above the brim of the pelvis; or, failing this, turning might be required, as in Sir James Simpson's case. The child in this instance was of unusual size. I had no opportunity of weighing it, but I do not think it could have been less than ten or eleven pounds. Had the child been smaller, it seems by no means impossible that the natural powers might have sufficed to overcome the obstruction; but the faulty position of the head doubtless had much influence in increasing the formidable difficulties of the case.

ART. 220.—*Two Cases of Puerperal Peritonitis without Lesion of the Uterine Organs.*

By M. HERVIEUX, Paris.

(*Gazette des Hôpitaux*, No. 54, 1867.)

CASE 1.—*General Peritonitis: Double Pleurisy: Death: Autopsy.*

B. (Marie-Jeanne), a seamstress, aged twenty-nine, was delivered of a live girl in the Hôpital de la Maternité, on March 18th, 1867. The woman was a multipara, married, and had resided in Paris for nineteen years. Previous pregnancies and deliveries had had a favourable course. From the commencement of her last pregnancy had been in indifferent circumstances; and for the last few months had suffered from cough accompanied by expectoration, and from abdominal pains. On the evening of March 19th had shivering and chattering of the teeth, followed by fever.

On the following day the fever persisted, tongue was dry and foul, no appetite, discharges normal.

March 22nd.—Abdominal pains.

March 23rd.—Pulse 112, skin moist; face flushed; tongue furred, red at the borders and apex; constant thirst; abdomen tympanitic, sonorous on percussion, tender at all parts and particularly over the epigastric zone. Uterus contracted and situated in the pelvic excavation. Discharges abundant, not fetid. The anterior abdominal region was cupped in twelve places; and poultices were applied sprinkled with laudanum.

March 24th.—Skin intensely hot, pulse 116, tongue red and very dry; no appetite, extreme and continual thirst, redness of left cheek, face moist, no restlessness, no delirium, but a feeling of lassitude. Respiration, 40, difficult and nasal. Abdomen distended and tympanitic, spontaneous pains and tenderness over the whole of its surface, particularly in the hypochondriac regions. Lochia of a yellowish colour, less abundant, not fetid. Since yesterday there has been a sharp pain in the right side, also a friction sound and dulness on percussion over right side and back of chest. The back of the right half of the chest was cupped, and a mixture containing morphia and aconite was prescribed for the patient.

March 25th.—Pulse hard and full, 120; tongue dry and red. No

vomiting. Abdomen tympanitic but painless. Cyanosis and oppressed respiration; a loud souffle on right side of chest and oegophony. Dulness in this region increasing more and more; the respiratory murmur was feeble and mixed with sibilant râles on the front and right side of chest. Patient complained of a pain on left side where there was dulness in front and considerable lessening of the vesicular murmur. The symptoms increased in intensity during the day, and at nine in the evening the patient succumbed.

Autopsy.—When the abdominal cavity was opened a liquid flowed away, which at first was of a reddish colour, transparent, and mixed with purulent and apparently pseudo-membranous floeculi, and afterwards thick like milk from the accumulation of pus in the dependent parts. The floeculi were scattered over every part of the peritoneal cavity, and were observed on the intestines, the pelvic viscera, the sides of the abdominal cavity, and even the spleen and liver, over which the fibrinous material was spread in a thick yellowish layer, which had already commenced to form adhesions, on one side with the diaphragmatic peritoneum, and on the other with the peritoneum covering the intestines. Wherever this pseudo-membranous and floeculent pus had been deposited the contiguous peritoneum was thickened, inflamed, and the seat of injections more or less intense, which were arranged in arborescent forms visible to the naked eye. M. Ranvier examined these injected patches under the microscope and made out that the vessels situated in the sub-peritoneal cellular tissue were dilated and lengthened. The pseudo-membranous floeculi distributed so extensively over the peritoneum were entirely composed of pus and fibrine. The uterus still enlarged (the patient died seven days after delivery) measured 17 centimetres by 13. Its tissue was firm, of a pearly white colour, with a slight rosy tint, no clots nor pus in the uterine sinuses, but only fluid blood. The internal surface of the uterus was covered by a reddish semi-fluid material which was not particularly fetid. The cervix was livid, infiltrated with blood as if ecchymosed, but its tissue was healthy and presented no traces of pus.

Sections were made in all parts of the uterus, particularly at its angles and at the insertions of the broad ligaments. No portion of the neck of the organ escaped the knife, yet notwithstanding this conscientious investigation it was impossible to discover in any part of the organ the least trace of any purulent deposit. The broad ligament, Fallopian tubes, and the ovaries were also perfectly healthy. The muscular fibres of the uterus were examined under the microscope by M. Ranvier, but presented no traces of alteration. The reddish discharge lining the inner surface of the uterus was found to be made up of large cells containing fat globules, blood-cells, a few pus globules, some large elongated cells apparently muscular fibres, and a mucous basis not miscible with water. The cells observed in this mucus were of every form and dimension, but this cellular polymorphism could be easily explained by the fact that all the elements of the inner surface which was wasting into detritus, were involved. At the part where the placenta had been attached, the muscular cells were found filled with fat, but there was no trace of gangrene, or even of phlebitis.

The liver was large, of a uniform reddish-grey colour, and had a fatty

aspect. On section but a very small quantity of blood flowed away from a few points. The gall-bladder was distended with thick bile.

The stomach, at its greater end, presented a large patch of ecchymosis about eight centimetres in diameter. The spleen was of a claret colour and soft. The kidneys were normal, though the pelvis of one contained some pus.

There was an effusion of reddish serosity into both pleural cavities, but to a much greater extent on the right side. There were false membranes, already organized, between the lobes of the right lung. The right lung, also, at its superior third, was of a greenish colour, and a section made into this part showed the tissue to be softened and easily convertible into a thick fluid mass. This was evidently nothing more than a post-mortem softening caused by the maceration of the lung in the effused fluid which had been confined to this part by strong bands of false membrane. On the left side there was a similar softening of the lung at that part of its surface which was in contact with the liquid effusion, but to a much less extent than in the right. The two lungs, with the exception of some engorgement, presented no other morbid appearance.

The pericardium contained some reddish serous fluid. The right cavities of the heart contained a great abundance of blood-clots, some black, others fibrinous and pale.

CASE 2.—*General Peritonitis and Pleurisy on the Right Side.*

F., aged twenty-seven years, primipara, was delivered of a girl on March 31st, 1867, in the Hôpital de la Maternité. Had not suffered previously from any severe illness, and the labour was a natural one. On the 2nd day after her confinement the patient had a slight rigor, and from this date the pulse rose in frequency (from 90 to 100) and the uterus became somewhat tender. In the evening of April 6th, the pulse rose to 120, and the next morning the patient was in the following condition:—Intense heat of skin; pulse 120; no headache; sleeps well. Tongue dry, red at its margins, and covered on its surface with a white coat. Loss of appetite; abdomen large, moderately sensible. The uterus could no longer be felt in hypogastric region. There was diarrhoea but no vomiting. The orifice of the vulva presented numerous sloughs extending into the vagina, some of a greyish colour, others yellow and very fetid; the mucous membrane surrounding these sloughs was of a crimson-red colour. Discharges greyish but not fetid.

April 8th.—Pulse small, 120; respiration, 36; absence of cough and expectoration. Restlessness and delirium. The patient professed to be better and wished several times to get up; from time to time she cried out. Skin hot and moist. Abdomen distended, tympanitic; not painful on pressure; nothing been passed at stool since yesterday. Same greyish and gangrenous aspect of the sloughs on vulva. The delirium and restlessness continued during the day. In the evening the pulse rose to 130; all the symptoms increased in severity during the night, and on the following morning at seven o'clock the patient succumbed.

Autopsy.—When the abdominal cavity was opened there was an exit

of a considerable quantity of thickish serous fluid suspending abundant purulent and pseudo-membranous flocculi. The intestinal peritoneum was scarcely altered, its surface was polished, and it presented neither increased vascularity nor adhesions. The convex surfaces of the liver and spleen, however, were covered by false membrane already organized, which were about a millimetre in thickness, and were so closely united to the diaphragm as not to be separated without difficulty. This false membrane was discovered under the microscope to be composed of globules of pus enclosed in fibrine. This latter constituent had in some places a fibrillar, in others a granular aspect. Beside the pus and fibrine, some epithelial cells were seen scattered here and there. The purulent flocculi had the same histological composition as the false membranes, with the addition of mucus.

The stomach and intestines were much distended and contained an enormous quantity of green bile of the consistency of syrup and resembling treacle in appearance. On account of this biliary hypersecretion, it became interesting to know the condition of the liver. This organ did not seem to be increased in size; its colour was nearly like that of muscle; and not the slightest trace of yellow staining could be perceived by the naked eye. The gall-bladder was filled with bile, having precisely the same appearance as that contained within the stomach.

The liver, when examined under the microscope by M. Ranvier, presented cells free from pigment. The absence of biliary pigment is a fact the more remarkable as the quantity of secreted bile was so considerable. All the cells were well preserved, they contained several nuclei, and at the periphery could be seen some small drops of oil. This multiplication of nuclei, as well as the presence of fat, were not special points in this particular case; but they may be observed in all women dying in child-bed.

The uterus was examined with the greatest care, and presented no appreciable morbid change. Almost wholly contracted, it hardly measured 10 centimetres by 7. Its tissue lustrous, shining, and white, was everywhere intact. The neck of the uterus was, as usual, livid and ecchymosed, but otherwise healthy; the inner surface of the organ was lined by a reddish deposit, which, when scraped off by the scalpel, left the uterine tissue to all appearance free from every sign of lesion. The uterus was cut up in every part, but the existence was not revealed of any purulent deposit, or even of any blood-clot. All the uterine sinuses were empty. The ovaries were large but healthy; the Fallopian tubes were in a normal condition.

There was an abundant effusion of thick fluid mixed with pus and false membrane, into the right pleural cavity. The external surface of the right lung, and also the interlobular spaces, were occupied by false membrane, which was already organized. The lower lobe of the lung was livid and engorged with blood. On the left side of the chest, the pleura and lung were both healthy, with the exception of some congestion at the infero-posterior part of the pulmonary organ.

The pericardium was notably distended, and contained a large quantity of a pale yellow liquid. In the right ventricle there was a pale fibrinous clot very tough. In the left side of the heart another pale clot was found, occupying both the ventricle and the auricle,

and extending for a distance of several centimetres into the aorta itself.

In the course of a clinical lecture based upon these two cases, M. Hervieux dwelt upon their importance with regard to the prevailing doctrines on the connexion of peritonitis with the general puerperal condition, and in conclusion gave the following summary of his own views on this interesting question :—

1. Although the peritoneum does not readily become inflamed spontaneously and primarily, still there is no reason, either anatomical or physiological, why it should not be affected independently of any lesion of a neighbouring organ, in the same manner as the pleura, the pericardium, and the meninges.

2. Though it be true that the peritonitis of lying-in women in the majority of cases extends from the inferior to the superior parts—that is to say, from the vicinity of the uterus and its appendages towards the abdominal regions above the umbilicus, yet there are well-authenticated cases in which the peritonitis, instead of spreading by propagation, attacked suddenly and at once all parts of the abdominal cavity, and other instances, much more conclusive, where the inflammation involved only the diaphragmatic peritoneum, and was quite free from any connexion with the uterine organs.

3. Though the inflammatory products may be identically the same in ordinary peritonitis, and in puerperal peritonitis, yet these products* in lying-in women are certainly, all other things being equal, much more abundant, much more rapidly formed, and much more readily organized than those formed in ordinary peritonitis from strangulation, perforation, &c. The morbid process seems to obey some other law than that which presides over the production of the ordinary inflammation of the peritoneum.

4. If it be admitted that lying-in women are under the influence of a special form of poisoning, how can the possible pathological consequences of this poisoning be denied? If a puerperal pleurisy be accepted, an affection which certainly no one will charge with being necessarily connected with lesion of the uterus, why not accept a peritonitis, which might be developed under the influence of the same cause—puerperal infection.

ART. 221.—*Case of Post-Partum Hæmorrhage, in which the Ether-Spray was successfully used.*

By JOHN BROADBENT, M.R.C.S., &c., Manchester.

(*British Medical Journal*, June 8, 1867.)

At half-past ten P.M. on April 3rd, 1867, Mr. Broadbent was called to see Mrs. T., in labour of her twelfth child. He found the os uteri only slightly dilated, and the pains weak. The breech presented, and the child was born on the following morning, without anything unusual occurring. The placenta was adherent, and required the introduction

of the hand for its removal. Profuse hæmorrhage followed; and, though the usual remedies, including ergot, cold napkins to the vulva, &c., and introduction of the hand into the uterus, were employed, the bleeding continued, and the woman became almost pulseless, and was evidently sinking fast. The hand in the uterus moved about as if in a wet bladder, little or no contraction being excited by it. Mr. Broadbent applied the ether-spray to the hypogastric region, using the double jet; and very soon the uterus began to contract, and the hæmorrhage ceased. There was no relaxation of the uterus after; and the woman ultimately made a good recovery, though very anæmic for some time after.

ART. 222.—*On a Fatal Case of Rupture of the Uterus occurring at the Eighth Month of Pregnancy.*

By R. DUNN, F.R.C.S.

(*Proceedings of the Obstetrical Society, Lancet, May 18, 1867.*)

On the evening of November 13th, 1866, Mr. Dunn was called to see Mrs. S., and on the evening of the following day she was delivered of a living child. It was her fourth pregnancy. The last confinement had occurred about twenty months previously, and the labour was natural and her recovery good; but in her first she had to be delivered by the forceps, and both in that and in the second had had adherent placenta and great hæmorrhage. During a visit to Margate in August of the previous year, she passed a dead fœtus of about five months; there was no flooding, and no placenta followed; but from that time she was subject to strange feelings about the womb. When Mr. Dunn was first called on the present occasion, the liquor amnii had been suddenly discharged, and there had passed a membranous substance resembling a piece of leather, and which Mr. Dunn took to be some relic of a former miscarriage. There were no labour-pains, and the os uteri was closed. The next evening labour-pains set in, and were attended with more than ordinary suffering. The os had become fully dilated, and the pains, though frequent and excruciating, were not effective. After waiting some time, there being no lack of room, but only of effective effort, a drachm of ergot infused in boiling water, with a dessert-spoonful of brandy, was administered. Energetic expulsive pains soon followed, and after three or four such, the child's head was suddenly expelled into the world with severe pain and screaming. Some difficulty was experienced in extricating the cord from the child's neck, it being particularly short. No pain following, the child was assisted into the world, and the patient tightly bandaged up. She was faint and low, and after waiting some time, as no pains came on, the finger was passed along the cord to its insertion into the placenta, which was found to be firmly adherent. The hand was then passed through the os into the uterus, and a transverse rent in its posterior wall detected. Being extremely faint and exhausted, stimulants were freely administered and Dr. Robert Lee was sent for. He thought her in a dying state, and

that unless she rallied there was nothing to be done. On a further examination, a loop of bowel was found to be protruding from the vagina, this was gently put back by Dr. Lee, and a warm napkin applied to the external parts. She had some sickness, and remained in such a state of collapse that her state seemed hopeless. Dr. Dunn remained with her all night. In the morning the protrusion of the bowel had much increased, and it was becoming black. About one o'clock she was seen by Dr. Tyler Smith, who pronounced the case hopeless, the protruding bowel being black and strangulated. She lingered for five days more, expelling between two and three yards of intestine before she succumbed. Dr. Tyler Smith was present at the autopsy, which revealed a transverse rent in the posterior wall of the uterus, in the interior of which the degenerated remains of a firmly adherent placenta were seen. No microscopic examination was made.

ART. 223.—*On the Umbilical Souffle.*

By Dr. A. CHARRIER, Paris.

(*Gazette des Hôpitaux*, No. 40, 1867.)

1.—The phenomenon named umbilical souffle though rare, occurs more frequently than is generally supposed.

2.—It is in practice a premonitory symptom of very great importance.

3.—It indicates compression of the umbilical cord, and consequently an impeded utero-fœtal circulation.

4.—The umbilical souffle may be intermittent or persistent.

5.—Intermittence diminishes the seriousness of the prognosis.

6.—Permanence of the souffle increases the gravity of the prognosis, particularly if alternate slackening and acceleration of the cardiac beats come on, and afterwards violent movements of the fœtus followed by a diminution both in the rhythm and in the number of the fœtal pulsations.

7.—When such symptoms occur, it is evident that the death of the fœtus is imminent.

8.—When the souffle is intermittent, it is the duty of the practitioner to abstain from action and to wait; but he should watch attentively, by auscultation, the utero-fœtal circulation.

9. If the souffle be persistent, and the phenomena of slow action and acceleration of the cardiac pulsations of the fœtus, &c., are presented, the practitioner should step in and induce premature labour.

10.—The umbilical souffle is frequently produced by an accidental shortening of the cord.

11.—Accidental shortening of the funis is in direct relation to its length, for the longer the umbilical cord, the greater is its chance of becoming twisted round one or more parts of the fœtus, and so giving rise to the disorders just mentioned.

12.—Accidental or natural shortening of the cord may be diagnosed in the last stage of labour by this sign:—an inversion of the fundus of

the womb at the time of each pain, which inversion is reduced spontaneously after the cessation of the uterine contraction.

13.—The anatomical proof of this incomplete inversion of the uterus may be found in the premature separation of the placenta at its central part, in the presence of recent clots behind this organ, and in the rapid expulsion of the afterbirth into the vagina almost immediately after the passage of the child.

ART. 224.—*On the Employment of Force in Obstetrics.*

By M. JOULIN.

(*Archives Générales de Médecine*, February, 1867.)

The problem of the application of artificial mechanical force for the termination of labour is much more complicated than might at first sight be expected. It is based upon a certain number of questions which ought to be examined separately; without this, the method cannot be rigorously appreciated.

The following are the chief results of the experience and observations of M. Joulin:—

1. By using an enormous force, and one which ought naturally to be rejected in practice, a reduction of five centimetres can be obtained in the diameters of the foetal head. During labour this reduction can hardly be carried beyond fifteen millimetres without exposing the child to the risk of an almost certain death. When the horizontal diameter of the head is reduced, the vertical diameter is elongated in proportion.

2. A reduction of fifteen millimetres is obtained with M. Joulin's *aide-forceps*, during labour, by means of a force varying from thirty-five to sixty kilogrammes. Perforation of the cranium allows this reduction to be increased in marked proportion, when it is insufficient for the head to pass through the contracted parts.

3. The average measurement of the biparietal diameter of the foetal head is nine centimetres; a child may therefore be brought into the world alive, through a pelvic outlet contracted to seventy-five millimetres, by a development of force lower than sixty kilogrammes. In the manual application of the forceps this result can only be obtained by the traction of two men representing a force of 120 kilogrammes.

4. In manual traction the muscular effort exerts its maximum of action for a very short time. It is made up of a series of rapid jerks, the power of which varies, in the course of two minutes, from twenty to sixty kilogrammes. Mechanical traction is progressive, sustained and regulated by a dynamometer; the maximum of action is not manifested before the end of the operation, and before an inferior force has disposed the foetal and maternal parts in reciprocal relation to each other.

5. The danger of force in obstetrics consists in the compression produced. M. Joulin's instrument, in accomplishing the same purpose with a diminished amount of force, reduces the compression, and consequently the amount of danger.

6. M. Joulin has collected 253 cases of cephalotripsy, representing 506 existences, taking into account the life of the mother, and that of the child; the general mortality reaches to sixty-five per cent. On the other hand, thirty-seven cases have been collected in which the employment of energetic manual or mechanical force was necessitated; in these cases seventy-four existences were concerned, and the general mortality was not higher than 43·2 per cent. This result gives a difference of 21·8 in favour of energetic traction.

M. Joulin's plan of bringing away the child by the application of instruments consists in first placing the ordinary forceps upon the foetal head, and then, during a pain exerting traction upon these by a cord passed through the slit in each blade, and then brought out of the vagina and attached to an instrument called the *aide-forceps*. This instrument consists of a steel tube, about thirty-four centimetres in length, in which works a long screw furnished with a movable nut projecting externally. At one end of the tube are two long and broad fixed blades, which are applied over the tuberosities of the ischia of the mother, and serve each as a point d'appui for the instrument; at the other end is a handle by which the screw axis is worked. The two ends of the cord are fixed to a ring enclosing a dynamometer, and this ring is suspended upon the movable nut. By working the central screw of the *aide-forceps* the cord is extended and drags down the blades of the forceps, and at the same time, by being pressed through the holes in the blades, brings them together with a power increasing in proportion to the resistance to the passage of the head.

Three excellent drawings, with detailed descriptions, are given in M. Joulin's memoir.

ART. 225.—*On Rupturing the Membranes in Imperfect Dilatation of the Os Uteri.*

By Dr. MASSMANN.

(*Petersburg. Med. Ztschr.* xi. 1, 1866; *Schmidt's Jahrbücher*, No. 3, 1867.)

Dr. Massmann ruptures the membranes in cases where the labour has lasted for twenty-four hours or longer, and where the os uteri, in spite of regular pains, has dilated but to a very small extent, and has maintained for some time the same size. This proceeding is indicated when the os uteri lies in the pelvic axis, when its lips are not swollen, when the head of the child has already passed into the deeper parts of the pelvis, when the pains are regular but not very strong, when no mechanical obstacle prevents the birth of the child, and particularly when no condition can be discovered accounting for the tardy dilatation of the os uteri except a deficient amount of liquor amnii and the consequent absence of an efficient bag. Dr. Massmann is convinced that this proceeding materially benefits the mother and does not injure the child. In cases of this kind, according to the author, soon after the membranes are ruptured, and a few drops of liquor amnii discharged, the pains

become stronger, the os uteri dilates perceptibly, and in the course of one or a very few hours the labour is completed.

Dr. Massmann explains the result of this proceeding in the following way. The absence of a distended bag of membranes during a long and tedious labour may be accounted for either by a deficiency of liquor amnii, or by the communication between the upper and lower parts of the bag being interrupted, which occurs when the head at the commencement of the labour has passed into the lower part of the pelvis, and has been so closely encircled by the uterus that no liquor amnii can flow by. In this case the os uteri cannot be dilated by the wedge of distended membranes, nor can the smooth and flaccid membrane stimulate to any great extent the lower segment of the uterus, and induce vigorous contractions of the walls of this organ. This, however, is brought about after the membranes have been ruptured, for the head of the child then comes into direct contact with the lower segment of the uterus.

Dr. Massmann adduces Michaelis as the single authority in favour of such a proceeding. But Michaelis seeks for the cause of the retarded labour in an over-filling of the membranes, which may be due either to a large quantity of liquor amnii or to a smallness of the containing bag. It is stated that this over-filling hinders the outward passage of the bag, but the retarded labour may, however, be explained in instances of excessive amount of liquor amnii by the great distension of the uterine walls, and consequent impairment of their energy; and, in the second place, it is difficult to understand why in over-distension of the membranes without these being very large, the bag should not be forced as a wedge into the os uteri, and the uterine contractions should be deficient in vigour.

Dr. Massmann thinks that another cause may possibly exist in connexion with that given above. In one case of retarded labour he found, besides a deficiency of liquor amnii in front of the child's head, an adhesion between the membranes and the inner surface of the uterus around the os. The membranes were ruptured, and the labour was completed after six hours. In this case it is questionable whether the adhesion or the deficiency of liquor amnii had not the greater share in causing the retardation of the labour. Six cases are reported by Dr. Massmann in which the membranes were ruptured, and he is inclined to think, that in all of these there was some adhesion between the membranes and the inner surface of the uterus in the neighbourhood of the os.

ART. 226.—*Shoulder Presentation: Version in the Position on the Knees and Breast.*

By J. G. BIGMAN, M.D.

(*American Journal of Medical Sciences*, October, 1866.)

On the 12th of August, 1866, I was called by Mrs. S. F., aged thirty-eight, in her sixth labour. Learned that the liquor amnii had

been discharged two hours previously to my arrival, and found an arm in the vagina, together with a prolapsed and pulseless funis.

The pains were frequent and strong, and the shoulder was pressed firmly into the superior strait. Having no chloroform, and being four miles in the country, I determined to attempt version without the aid of an anæsthetic.

The patient was placed in the ordinary position for the operation of vesico-vaginal fistula. Found no difficulty in displacing the shoulder from its position sufficiently to introduce the hand. The force of the pains seemed materially diminished by the change of posture. After securing a foot I was surprised at the facility with which the version was accomplished.

Having twice previously been compelled to turn without the benefit of an anæsthetic, and giving due consideration to the degree of impaction of the presenting part, as well as to the size of the fœtus, &c. (this one weighing five and a half pounds), I have no hesitation in adding my mite of testimony in favour of the position named when turning is required.

ART. 227.—*On the Production of Inverted Uterus.*

By JAMES MATTHEWS DUNCAN, M.D.

(*Edinburgh Medical Journal*, May, 1867.)

Dr. Matthews Duncan, in concluding a valuable communication on the production of inverted uterus, gives the following brief account of the four kinds of uterine inversion that may occur:—

Spontaneous passive inversion occurs in cases of paralysis, or inertia of the whole uterus; the organ being large, its walls lax, and capable of being inverted by little force. Bearing down produces, in general, collapse and compression of the organ; but it may produce inversion if the depressing force is applied under favourable circumstances, and the inversion will be complete if the bearing down is strong and continued. Should the original condition of inertia persist, the neck not contracting around the inverted organ, then replacement will be at least as easily performed as inversion. It is to this category that I am disposed to refer the cases of inversion post-mortem, which Boerner and Klaatsch have recorded.

Artificial passive uterine inversion demands little description. It is the kind of inversion commonly described by the older authors. It differs from the spontaneous passive inversion only in this, that foreign force replaces the bearing down. The foreign force may be applied from above by pushing, or from below by pulling the cord, or manœuvring with the placenta. It would be a more frequent occurrence than it is, were it not the case that the interference which tends to produce it also tends to bring on that general uterine action which prevents it. It is in all respects similar to the former kind. In both kinds of passive inversion hæmorrhage will probable occur if the placenta is separated, and the conditions of their production persist.

Spontaneous active uterine inversion is the kind which modern authorship is bringing more and more into notice as the most common kind. I have already said that I am disposed to think this tendency is being pushed too far. In this kind, paralysis of the fundus, or of a portion of it, probably of the placental portion, occurs. The state of the retentive power of the abdomen, or positive bearing down, leads to this portion projecting into the uterine cavity. It is seized by the adjacent contracting segments of the uterus, is pushed down and expelled through the os uteri into the vagina, or beyond the vagina. It is difficult of replacement, in consequence of the contraction of the uterus around the inverted parts.

Artificial active uterine inversion differs in nothing from the kind last described, except in this, that the inversion of the paralyzed portion is effected by pressure from above, or by pulling on the cord, or other interference from below.

It can scarcely be considered out of place to add, in conclusion, a few remarks on spontaneous replacement of an inverted uterus. It is almost useless to say that spontaneous replacement of the first stage of an inversion often occurs, and is accounted for by contraction of the inverted part, or by alteration of the condition of the retentive power of the abdomen changing an inversion into an elevation of the paralyzed portion of uterus. But spontaneous replacements of completely inverted uteri have been reported by Dailicz and others. The possibility of this spontaneous replacement has been denied. But I see no reason to doubt it. An inverted or opposite condition of the mechanism which produces spontaneous passive inversion may also produce spontaneous passive replacement, whether at an early or at a late period. Spontaneous active uterine replacement is inconceivable, because the necessary conditions being described generally, the same as those for spontaneous active inversion, cannot be supposed to exist.

(B) CONCERNING THE DISEASES OF WOMEN.

ART. 228.—*Anteflexion and Anteversion of the Uterus : Treatment by a New Form of Pessary.*

Under the care of Dr. GRAILY HEWITT.

(*British Medical Journal*, February 2, 1867.)

We had occasion to see the other day, at this hospital, a case of anteflexion of the uterus, which was being successfully treated by a novel form of pessary, of Dr. Graily Hewitt's contrivance. The instrument has to be fashioned into shape for use, as its form and dimensions must be altered and modified according to the length and curve of the vagina, and the width of this canal at its upper and posterior part. Dr. Graily Hewitt has, therefore, two different sizes of rings made, of copper wire, covered with gutta percha; by keeping them for a little while in warm water, they may be sufficiently softened so as to be

easily altered into any shape. When one of them is required for use it is first squeezed from side to side, so as to render it oval, one extremity of the oval being made larger than the other in proportion to the ascertained width of the posterior part of the fundus vaginae, where it is intended to lie. It is next compressed in an opposite direction to the former, in such a way as to make each side project about its middle, into a kind of nipple-like eminence. Care is taken that these projecting pieces are wide enough to allow full play to the uterus, the fundus of which is meant to rest between them.

The instrument, when thus moulded into the required shape, is well oiled, and then introduced into the vagina in an oblique manner, the mammillary projections being made to slide under the arch of the pubes by a dexterous depression of the end of the instrument held in the operator's hand. After the pessary has been introduced, the chief point to attend to is, that the uterus passes through it, and that the larger extremity gets well behind the cervix. The mammillary projections push up the anterior wall of the vagina, and support on each side the body of the womb. The great advantage of the instrument is, that it reduces to a minimum the inconvenience resulting from the use of pessaries in general, namely, dilatation of the vagina. Dr. Graily Hewitt speaks highly of its employment; and, certainly, in the case that we saw ourselves, the patient, a young married woman, who had for months suffered from antelexion of the uterus, and its attendant disagreeable consequences, hypogastric pain, sensation of constant bearing down, and inability to stand or move about during the menstrual periods, had obtained considerable benefit. Dr. Hewitt also states that his pessary is as useful in anteversion of the uterus; and he mentioned, *apropos* of this, a case which had lately occurred in his private practice, that of a lady who, for a long time, had been confined to her room, on account of an anteverted uterus, but who managed to walk downstairs and join the family circle at dinner, immediately after the introduction of one of his pessaries.

ART. 229.—*On the Intermittent Appearances of Intra-Uterine Fibrous Polypi.*

By M. O. LARCHER.

(*Archives Générales de Médecine*, Janvier-Février, 1867.)

M. Larcher in this memoir directs special attention to some peculiarities in the history of uterine polypi which have been rapidly passed over by writers on this subject. It is well known that the greater number of fibrous polypi which are developed in the uterus, have a tendency to escape at some time or other from the cavity in which they are at first confined. In some cases, certain fibrous polypi, the existence of which had not previously been suspected, may be rapidly expelled by the contractions of the uterus during labour, but generally it is by repeated efforts that they at length pass out of the uterine cavity. These attempts of the muscular tissue of the uterus to free itself of an

encumbrance have not escaped the notice of attentive observers. M. Larcher thinks, however, that some important details on this point have been overlooked; and with the help of many clinical facts examines the following questions:—

1st.—Is there any favourable period at which the uterus presents a greater tendency, and perhaps also more facility, to free itself of the organic product which exists in its cavity as a foreign body?

2nd.—When the process of expulsion has commenced, and the polypus has entered into the passage opened up before it, is its egress positively obligatory?

3rd.—Can a fibrous intra-uterine polypus, the existence of which has been made out owing to the dilatation of the neck of the uterus, cease, under certain conditions, to be accessible to the usual means of exploration.

A case is related of a woman, in whom, after frequent menorrhagia, a polypus projected through the orifice of the os uteri at a period after a menstrual epoch. Some days later the patient entered the Hôpital Beaujon, and when examined again nothing could be found. Finally, a few days afterwards, at the time of a menstrual epoch, another examination was made, and then there was clearly made out the existence of a tumour projecting through the vaginal orifice of the neck of the uterus. The first observer had recognised undoubtedly the existence of the tumour; the second could not find the smallest vestige of one, and it was only after an interval of some days that the polypus again became visible and accessible even to surgical applications. On the two occasions when the existence of the growth was recognised, its appreciable presence coexisted with a menstrual epoch; whilst its absence corresponded to the interval between two catamenial discharges. It seems, then, that the period of menstruation is favourable to the external appearance of polypi; and that, under certain circumstances, not so rare as are supposed, the effort of expulsion having been insufficient, the uterine contractions cease, the orifice of the neck closes, and the polypus is withdrawn, to appear again at the next menstrual epoch.

The coincidence of the menstrual epoch with the phenomena just mentioned has already been observed and mentioned by Aran, Nélaton, Ramsbotham, and Lesfranc.

M. Larcher states that profit is to be derived from these facts, both in the treatment and in the diagnosis of uterine polypi.

Treatment.—Of all proceedings the surgeon can have recourse to, that of complete removal is the best indicated. If the polypus can be easily seized, or if the uterine contractions produced by the administration of ergot, together with dilatation of the os uteri produced artificially when there is occasion, render the growth more accessible, the presence of the menses is not a contra-indication. If the dimensions of the portion of the polypus which is presented, do not seem to allow of its direct removal, it will be better to wait, to allow it to escape again, and to put off until the time of its next appearance, an operation which will, perhaps, be then better indicated. With regard to diagnosis, the knowledge of the intermittent appearances of a certain number of uterine polypi is important for many reasons.

It should make more reserved, in his opinion, the practitioner, who

having plainly proved to himself the existence of a polypus, and not being able to perceive it again, will be led to think that the tumour has passed away from the genital passages.

As a point of diagnosis, especially applicable to therapeutics, the facts mentioned in the essay should prevent the surgeon from postponing to a late period the time of operation, if the polypus be already accessible to surgical applications.

Finally, if a practitioner has clearly recognised the existence of a fibrous polypus projecting from the lips of the os uteri; and if another surgeon, proceeding to an examination at a later date, is not able to discover what the first observed, he should not infer too positively that his predecessor was in error. A third observer may find the polypus with all the characters noticed by the first, and he should not, in his turn, think that an error has been made by the second surgeon. Aran states that it has happened to him, to overlook in a case of this kind, a fibrous polypus which was afterwards recognised and removed by one of his colleagues.

ART. 230.—*A Case of Puerperal Eclampsia: Recovery.*

By C. B. SUCKLING, M.D., Senior Obstetric Surgeon, Queen's Hospital; Professor of Midwifery, Queen's College, Birmingham.

(*Medical Times and Gazette*, January 19, 1867.)

Dr. Suckling records this case, as he thinks it unique, and that the sum of obstetrical experience is made up of the narrative of such-like, and that it belongs to the category of those which are highly interesting to the accoucheur, not only because of the great mortality which attends them, but of the conflicting opinions existing concerning their nature, causes, and treatment.

"Mary E., aged twenty years, married, primipara, a healthy-looking woman, inclined to robustness, of sanguine temperament, and cheerful disposition; had enjoyed good health until her marriage. She supposed herself to be taken with labour-pains on December 1, 1866, at 10 A.M. I was summoned at 10.30 A.M., and found her in the following condition:—The pains she suffered from were not, in my opinion, true labour-pains. This was subsequently confirmed on examination per vaginam. Her feet, legs, and thighs were enormously swollen from dropsical effusion; also the external organs of generation. Here, so great was the cedema that it was only with the greatest care and difficulty that an internal examination could be made. The labia resembled two huge collars of fat rather than their own symmetrical shape. The clitoris partook equally of the same degree of enlargement. The swelling was limited to the parts below Poupart's ligament, with the exception of a slight puffiness of the integuments of the face and orbits. There was thirst, quickness of the pulse, and flushed countenance, with no undue disturbance of the sensorium, no pains in the head, no spasmodic twitchings of the muscles of the face or legs, or any apparent signs of approaching convulsions. The patient, with the exception of the

symptoms mentioned, was calm and collected—the only anxiety she evinced was concerning the unnatural size of her lower extremities, which she stated had been gradually enlarging during the past few weeks. I could not obtain any quantity of her urine, which was much to be regretted, but it was described as being of a dark brown or smoky colour. There being no signs of labour coming on soon, I prescribed cold spirit lotions to the head, leeches to the temples, and saline purgatives, requesting that the patient should be kept as quiet as possible, and that they should send for me as soon as the pains came on. The following morning at 9 A.M. a messenger was despatched to me in great haste. I found the patient in convulsions. Before their accession she had been very sick. The aperient medicine I had ordered previously had acted powerfully, and she had micturated freely in the bed. I at once made a vaginal examination, not without difficulty, owing to the violent unconscious resistance offered to the introduction of the hand; the os uteri was relaxed and dilated to the size of a shilling; the membranes entire, and the head of the fœtus in the first position. My friend and colleague, Professor Clay, whose valuable counsel I sought, agreed with me, that as there were no regular uterine contractions, and no symptoms indicative of immediate danger, it would be advisable to leave the case in the hands of Nature a few hours, until the pains should recur more frequently and regularly, and that on my next visit I should administer chloroform, and, if necessary, deliver the woman by artificial resources. At 11 A.M. the same day I was sent for, and found the patient almost comatose. This had been preceded by another attack of convulsions. She could be aroused to partial consciousness by shaking her well, or by dashing cold water on her face. On examining her, the child, placenta, and membranes were found in the bed surrounded by very little blood; the uterus was well and firmly contracted, but the mother still remained in the same semi-comatose condition. During my attendance she suddenly recovered from her partial lethargy, and became quite furious, with flushed face, quickened pulse, and bloodshot eyes. I at once placed her under the influence of chloroform to the degree of the first stage. She became tranquil immediately, and fell into a quiet sleep. There was scarcely any hæmorrhage. After remaining with her some time, I left, with strict injunctions to the attendant that the room should be kept darkened and cool, and that she should be on no account disturbed. On my next visit—morning—she was still in the same state, but could be awakened by force. As the pulse was somewhat depressed, I ordered a little brandy and cold water to be given at short intervals—a stimulant which I would strongly recommend under such circumstances. In the evening she could be aroused easily, and answered questions put to her, yet somewhat incoherently. The following day she was better in every respect. The head was cool, the skin moist, the vessels of the eyes uninjected, the pulse normal in frequency and power, the bowels had been well moved, and the œdema of the legs and face had been very considerably diminished. The lochia were natural in colour and quantity. After this period the patient made a rapid recovery, and on the tenth day from the commencement of labour, she might be said to be convalescent. She states that she remembered nothing of what transpired during the time

her condition was so perilous; in fact, her mind then was a perfect blank. This oblivion, I may remark, is a noticeable feature after convulsive seizures of this kind."

This case is, Dr. Suckling opines, one of those which are to be attributed to congestion of the renal vessels from pressure dependent upon the puerperal state. Dr. Suckling observes that the patient had never had an epileptic fit, nor was epilepsy to be traced to any member of either her husband's or her own family. She had, therefore, no predisposition to the disease from this source; nor had she ever been intemperate either in eating or drinking; no mental emotion had ever given her a moment's inquietude; nor does it appear that atmospheric influence had any effect in producing the convulsions, as the situation of the patient's dwelling was healthy. It was not of epidemic origin, as there was no other case of the like nature in the district. Although Dr. Suckling had not an opportunity of examining the urine, or detecting the presence of carbonate of ammonia, he is inclined to think that there was some noxious material in it, most probably albumen. To show that pressure of the renal veins does operate in the production of albumen, we have the undeniable testimony of Robinson, Meyer, and Frerichs. That the disease in this instance was not ascribable to Bright's disease, was proved by the absence of amblyopia, and even amaurosis. Here there was no abrogation of the functions of the retina, but simple albuminuria produced by pressure of the uterus on the blood-vessels, and consequent congestion of the kidneys. As soon as the pressure was removed by the birth of the child, we had total and rapid disappearance of the oedema and convulsions.

The following are said by Dr. Suckling to be the points of interest in the foregoing case:—"The non-necessity of general bleeding by the arm; the supervention of the convulsions on the occurrence of uterine pains; the absence of any special or known predisposing cause, with the exception of the gravid state, and the non-plethoric condition of the patient; the existence of no epidemic disease in the locality. After the birth of the child we had none of the evils enumerated as so frequently supervening, such as loss of memory, giddiness, vertigo, headache, and other cerebral symptoms. There were no signs of peritoneal inflammation, to which the patients are specially liable after attacks of eclampsia; nor was there anything like an approach to renewed convulsions. We have also practical demonstration of the fact that the convulsions do not annul the muscular contractions of the uterus, and that labour may be terminated without the aid of manual interference.

"The action of chloroform had a marvellous effect in abating the mental excitement, and moderating the intensity of the convulsions. I believe its agency had chiefly to do in preventing a return of them, and that, by favouring the relaxation of the os uteri and soft passages, it facilitated the progress and natural termination of the labour. Professor Channing, Drs. Churchill, Skeleton, Braun, Professor Simpson, and M. Cazeau all bear testimony in terms of high commendation of this anæsthetic in these cases. The last-named authority strongly recommends it when the os is very rigid, and the convulsions are persistent; it diminishes their frequency, and sometimes prevents their return."

ART. 231.—*Modifications of the Operation for Vesico-Vaginal Fistula.*

By M. GAILLARD, of Poitiers.

(*Archives Générales de Médecine*, Janvier, 1867.)

On November 20th, 1866, M. Gaillard read a paper before the Académie de Médecine detailing certain modifications proposed by himself and M. de la Mardière for the operation of vesico-vaginal fistula.

These modifications are three in number.

1st. The proceeding of paring the edges, "*procédé pour l'avivement.*" This stage of the operation has always been regarded as the most difficult one by surgeons, who have to avoid the accident of removing too much tissue on the one hand, and that much more inconvenient one on the other, of leaving on the edges of the fistula small portions of tissue covered by epithelium, which prevent union. The difficulty consists in not being able to distinguish along the cut surfaces, notwithstanding the separation of the edges and red colour of the blood, the parts already pared from those not yet deprived of their epithelial covering.

The fistula being exposed, empty the bladder with a catheter, and wipe carefully the solution of continuity, then pass into the orifice and along the borders of the fistula a stick of nitrate of silver, which should be applied to the whole of the circumference. Inject immediately a solution of common salt through the fistula, and at once all the parts touched by the caustic, and which should be the portions required to be pared away, will acquire an apparent silvery-white colour. By means of this guide, the necessary parts may be cut away with facility.

2nd. modification. The plates and metallic buttons are not used, for the following reasons: the more complicated the apparatus, the longer and more painful is the operation. The tendency of the tissues of the vagina to become inflamed and ulcerated increases with the number of foreign bodies placed there. Metallic plates being hard cannot fail to irritate the mucous membrane. The wall of the vagina to which these plates are applied is not a level surface, it presents a number of varied and elaborate projections; transversely it forms an arch at the central part; taking it in its long axis, it forms a movable surface, convex forwards, which is brought downwards while the sutures are being applied, and ascends again as soon as the speculum is removed. The interrupted suture adapts itself admirably to this irregular form, and to the movements of the vesico-vaginal partition.

3rd. modification. It is stated by M. Follin "that when a number of threads are passed across a fistula, considerable difficulty is experienced in separating them one from the other." To obviate this, M. de la Mardière has conceived the idea of attaching to each end of the suture a small bead, and M. Gaillard, adopting and improving this idea, procured some small glass beads of the various colours of the solar spectrum; each suture is marked with a different colour, the first thread carries two red beads, the second two orange beads, the third two yellow ones, and so on to the eighth, which carries two white beads,

all being arranged in the order of the colours of the rainbow. The eight sutures being marked in this manner at both ends, it is an easy matter, taking the colours in converse order as white, violet, blue, green, yellow, orange, and red to distinguish the thread, and afterwards to twist them with Charnirés forceps according to the method of M. Mettauer. The ends of the suture are then brought out from the vulva and cut short. The tedious operation for vesico-vaginal fistula cannot but be simplified by these ingenious proceedings, which have been applied with the best success after extraction of stone from the female bladder.

ART. 232.—*Remarks on the Use of Fused Anhydrous Sulphate of Zinc to the Canal of the Cervix Uteri.*

By J. BRAXTON HICKS, M.D., F.R.S.

(*Transactions of the Obstetrical Society of London*, 1867.)

At a meeting of the Obstetrical Society, Dr. Hicks called attention to the employment of anhydrous sulphate of zinc, cast into sticks of various sizes and lengths, for the treatment of those states of the canal of the cervix uteri which require styptics, such as cervical leucorrhœa and turgid vascular conditions of the mucous membrane, frequently giving rise to menorrhagia. Dr. Hicks has for some years employed tannic acid bougies and tannic acid pessaries, and also nitrate of silver in small sticks, but he has not found them so efficacious as the sulphate of zinc. The sticks of fused sulphate of zinc can be used either by passing a full length stick to the inner os, allowing it to remain for a time, or a portion can be passed up to the upper part, and permitted to remain there altogether till dissolved by the secretions. Dr. Hicks prefers the latter plan, as its effects are more durable. It gives no pain worth consideration, and remains within firmly by the constriction it produces on the membrane. It may be employed twice a week.

ART. 233.—*Plan for Cauterizing the Cervix Uteri.*

By ROBERT BARNES, M.D., F.R.C.P.

(*Transactions of the Obstetrical Society of London*, 1867.)

At a meeting of the Obstetrical Society of London, March 7th, Dr. Barnes observed that at their last meeting he had mentioned a plan for cauterizing the cervix uteri by dipping a uterine sound several times into a strong solution of nitrate of silver, allowing the nitrate of silver to dry on the sound, thus giving it a coating; then by introducing the sound into the cervix and turning it round you easily and efficiently effected your purpose. Dr. Barnes has had a rod made after the fashion

of a uterine sound, for the purpose of cauterizing the cervix in the manner already described.

ART. 234.—*The Pedicle in Ovariectomy.*

(*British Medical Journal*, February 23, 1867.)

Dr. Joshua B. Graves, in describing an operation of ovariectomy in the *Philadelphia Medical and Surgical Reporter*, adds:—The operation I consider a successful one, in every respect but one—in healing the external incision in the abdomen; part of the pedicle, by which the tumour was connected to the ovary, became adherent to the abdomen. This adhesion produces a slight stoop as she walks, and prevents her from standing perfectly upright; a defect which, however, she is rapidly overcoming.

ART. 235.—*Successful Removal of the Uterus, containing a Fibroid Tumour weighing 9 lb. 1 oz.*

(*Gazette Hebdomadaire*, November 23, 1866; and *British Medical Journal*, February 23, 1867.)

M. Kœberle has successfully removed the uterus of a patient, aged thirty-seven, suffering with an abdominal tumour, complicated with ascites, for five years. It was believed to be a multilocular cyst of the ovary, and to this mistake the patient owes the operation and her recovery. After the abdominal incision and the escape of the ascitic fluid, the tumour was found to be composed of interstitial fibroids developed in the fundus of the uterus, extensively adherent to the pelvis on the left side. The adhesions and the cervix were secured by metallic ligatures, and the tumour cut away. As the ligature around the pelvic adhesion embraced a great thickness of tissue, the cut surface was carefully cauterized, and the wire removed. Little blood had been lost, and the wound was closed. A glass tube, four inches in length, was placed in the pelvic cavity, behind the neck of the uterus, so as to give free exit to any serous accumulation. The portion of the uterus beyond the ligatures was transfixed in three-points transverse needles, so as to keep the parts in apposition to the abdominal wall. No dressing was applied. The operation lasted an hour and a half. The patient recovered in three weeks, without a bad symptom. M. Kœberle has removed the uterus in six cases: three recovered; three died from hæmorrhage.

ART. 236.—*Clinical Remarks upon Cancroid of the External Genitals of the Female.*

By Dr. LOUIS MAYER, Berlin.

(*Virchow's Archiv*, xxxv. 1866; *Schmidt's Jahrbücher*, 1866.)

It is well known that malignant tumours are met with in surpassing frequency among women; and that the cause of this is due to the frequent occurrence of cancerous growths in the female sexual organs. These organs, however, are affected in very uneven proportions—the uterus most frequently, next to it the mammae, then the ovaries, vagina, and vulva. The external organs of generation supply but a very small contingent to these affections; so that out of 266 cases of malignant disease of the female sexual organs, nine only are noted in which the vulva was primarily affected. From this rare occurrence, and from the difficulties which are so frequently presented to microscopical examination, the reason is explained why, in the small collection of observations on malignant growths of the vulva, an exact description of the form of the tumour is wanting. Mayer mentions four accurate observations which exist in Surgical Literature, all of which refer to caneroid; of his own nine cases, four undoubtedly, two in all probability, were instances of caneroid; two were cases of schirrous; one was probably a form of sarcoma. Hence he draws the justifiable conclusion, that caneroid is one of the more frequent forms of tumour of the external generative organs of women. This cannot be a matter for surprise, for the genitals present a very evident predilection for this form of morbid growth. Caneroid growths are developed, generally upon the labia majora, in most instances from but one, more rarely from several isolated foci. Warts or knots are formed, which are covered with more or less thickened layers of epithelium. In two of Mayer's cases this thickening of the epidermis had formed a callosity, and the epithelial hyperplasia had already existed for some time before the appearance of the tubercles. This thickening cannot be considered the commencement of the growth of the caneroid, for it has frequently been observed without anything of the kind having followed; although it is not to be doubted that this state of irritation favours the development of malignant disease. Mayer had in one case the opportunity of watching the course of the development of a caneroid growth through its several stages, from that of thickening to that of death. In this case the warty growths remained fixed in the thickened epidermis for months without undergoing any great change. They were of a yellowish colour, the surface was granular, and they felt like hard, round tubercles. Their growth at first was slow; by degrees their colour became red, and they commenced to secrete some fluid. The neighbouring tissues then swelled, small erosions appeared upon the enlarging growths, and developed into round elevated ulcers, with hard livid margins, and of a dirty reddish colour. These ulcers increasing on all sides, extended quickly into the granular organs; with one exception the vagina was always left unaffected, in the same way that caneroid of

the vagina never extends beyond the carunculæ Myrtiformes. In the case detailed by Mayer, a papillary projection presented itself from an ulcer; this gradually increased, until at last it formed a tumour of the size of an apple; it then underwent a process of softening, and was almost completely destroyed.

These several forms of canceroid plainly manifest themselves as specific new formations, but the species of a tumour can never be diagnosed without microscopic examination. Mayer found in his small number of cases canceroid-epithelial scales. The progress of growth may in the first stage (the stage of papillary swelling) be a very long one. After the commencement of ulceration, the canceroid growths, when left alone, destroy the patient within two years.

The symptomology does not differ from that of canceroid in other organs.

With regard to etiology, Mayer's observations give no support to the idea of hereditary predisposition. The time of life at which the women were affected in Mayer's collected cases is as follows:—

Out of thirteen, three were first affected between the ages of thirty and forty years; two between forty and fifty years; seven between fifty and sixty; one between sixty and seventy. In three cases mechanical irritation was given as an occasional cause.

The main question, with regard to treatment, is, whether the growth can be extirpated or not. In the early stages the chances of extirpation or destruction by the actual cautery are favourable, and the operation should be undertaken as early as possible; for the cellular-tissue of the female genitals forming the base of the canceroid is rich in vessels, and favours speedy infection. Mayer was enabled to operate upon two out of his six cases. The first case ended favourably; in the other the disease returned in the inguinal glands, and caused death.

ART. 237.—*Sulphate of Bebeerine in Uterine Diseases.*

(*New York Medical Record*, March 1, 1867; and *British Medical Journal*, March 30, 1867.)

Dr. A. P. Merrill says that the sulphate of bebeerine is a remedy for dysmenorrhœa, excessive menstruation, hæmorrhage, leucorrhœa, and all uterine disorders dependent, in whole or in part, upon hypertrophy and hyperæmia of the uterus and its appendages. It exercises, also, a tonic power over the kidneys and bladder, and a restraining influence over the blennorrhœal discharges. He prescribes it in pills, made up with syrup, in doses of five to twenty grains, and commonly employs aloes as an adjuvant remedy.

ART. 238.—*Intra-Uterine Polypus.*

(*Medical Press and Circular*, January 9, 1867.)

Dr. Atthill detailed the particulars of a case of intra-uterine polypus at a meeting of the Obstetrical Society of Dublin.

The patient was an unmarried woman, aged forty-five. She was in an extremely weak and emaciated condition, being rendered almost exsanguine by the repeated and latterly continuous attacks of uterine hæmorrhage. On vaginal examination the uterus was found to be greatly enlarged, perfectly globular, the cervix being entirely obliterated, and the os closed, so much so as to admit with difficulty the point of a uterine sound. A small sponge tent was carefully introduced into the os, which dilated it in a few hours to the size of a sixpence. On its removal this was at once replaced by a larger one, and finally by one of even greater size. These acting very satisfactorily opened the os to the size of a crown-piece. Dr. Marion Sims' intra-uterine ecraseur was then introduced, but all attempts to snare the polypus with it failed. An ordinary wire ecraseur was then tried with no better success, the extreme narrowness of the vagina, and the unyielding nature of the uterine walls adding greatly to the difficulty of the operation. Recourse was then had to Gouche's canula, with which, after some difficulty, a ligature of double whip-cord was carried round the pedicle and tightened. Some vomiting followed. The ligature was tightened morning and evening by means of a winch, ingeniously adapted on the plan suggested by Dr. Beatty, to the end of the connecting rod of the canula.

Five days elapsed before the ligature cut through the pedicle, and even then the polypus was retained in utero, and had to be removed by means of a small pair of forceps. The polypus, which was fibrous, was the size of a large egg. This woman had more than one well-marked rigor, and much uneasiness was felt lest she should be attacked with pyæmia. In order to obviate the risk which the slow action of the ligature entails, Dr. Atthill devised and exhibited to the meeting an instrument which may be briefly described as an adaptation of the canula of Gouche to the ecraseur, the end of the ecraseur being modified so as to allow the canula, by which a wire rope is carried round the pedicle of an intra-uterine polypus, to pass through it, the rope being then attached to the ecraseur. The operation is completed as by an ordinary wire ecraseur, thus uniting the rapid action of the ecraseur to the facility of application afforded by the canula of Gouche.

ART. 239.—*A Case of Fibrous Tumour of the Uterus, attended by Early Pregnancy: Retroversion of the Uterus and Retention of Urine: Death and Decay of the Fætus: and, subsequently, Death of the Mother from Pyæmia.*

By J. HALL DAVIS, M.D., F.R.C.P.

(*Obstetrical Transactions*, vol. viii.)

The subject of the following case was Mary Goodridge, aged thirty-six, a married woman. The *state on admission*, as noted in the hospital card, is as follows:—A large abdominal tumour occupies the pelvis and the abdomen up to the level of the ribs, and lying principally on the

right side; general tenderness; a lobe of tumour felt in recto-vaginal pouch; cervix uteri is hard, pressed closely behind the pubis, and drawn up. Incontinence of urine. Has lost flesh; is feverish. Family history.—Her mother died recently of a tumour, but of what kind she does not know. She has three sisters living and healthy. Has been married five years, but she has never been pregnant, unless so now, as she suspects herself to be.

History of illness.—Her illness commenced about four months ago with morning sickness. After a short time she began to notice enlargement. The catamenia not recurring after the beginning of June, she was supposed to be pregnant. She was seen by Mr. Tyler, of High Street, Marylebone, in the month of July, and from the symptoms he suspected pregnancy, and prescribed successfully for the sickness. In the month of September she frequently sent for Mr. Tyler on account of retention of urine, which a warm bath sufficed to relieve, until the 19th of September, when the warm bath was of no avail, and he found it impossible to introduce any sort of catheter. Mr. Tyler accordingly requested Dr. Hall's attendance, who, on examination, found a distended bladder and a retroverted uterus, the body of which was enlarged, but the cervix was hard and undeveloped. He could not pass the catheter with the patient lying on her back or side; he therefore had her placed in a kneeling posture, with her shoulders resting on the bed. The catheter then slipped into the bladder at once, and a quart of urine was drawn off. The retroversion of the uterus seemed to Dr. Hall, at least in part, due to the pressure of an abdominal tumour upon the fundus of the uterus, the tumour probably a fibroid growth of the uterus. He suggested the introduction of a caoutchouc hollow globe pessary into the vagina, and this to be inflated; hoping that its elastic pressure bearing upwards on the fundus and body of the uterus might prove as effectual in reducing the organ into its correct position as the same expedient had been in another case, in which he had been consulted a few days before, where a fall had occasioned a similar displacement of the gravid uterus at the fourth month of gestation. This treatment succeeded also in the subject of the present case. After this the patient no longer suffered from retention, and the uterus, when examined subsequently in the hospital, was found no longer retroverted.

Progress of the case in the hospital.—Being, on admission, September 30th, in a low state, and in great pain, she was ordered wine, and as much strong beef-tea as she could take, opium to relieve the pain, and castor-oil, as the bowels were confined. On the 6th of October effrvescing draughts of citrate of potash, with dilute hydrocyanic acid and tincture of opium were given to relieve the vomiting, linseed and laudanum poultice was applied to abdomen, but without relief. On October 11th, Dr. Meadows, who was acting for Dr. Davis during his absence from town, saw the patient, and, on examination, found the neck of the uterus drawn up above and behind the pubis. He could easily introduce his finger into the orifice of the uterus. The uterine sound passed five and a-half inches without opposition upwards and forwards. The cavity of the pelvis was found occupied by a solid tumour, a separate lobe of which was found to be lodged in the cavity of the

sacrum. There was great sickness, and very offensive discharge from the uterus, which Dr. Meadows ascertained by the sound to be enlarged, but not to be retroverted. Its enlargement, he supposed, was due entirely to the tumour.

October 14th.—Face anxious and pinched; skin hot; aching pains all over the body. She lies in a drowsy state, with eyes upturned. Slight delirium for the last two or three days. Urine passed involuntarily; sickness abated; occasional hiccup, with eructation of flatus; expectoration of mucus. A crop of blebs, which appeared on the abdomen on the 12th, have subsided. Pulse soft and regular; tongue moist; knees drawn up; coughs occasionally. Brandy, six ounces, soda-water; subcutaneous injection of morphia, one grain.

October 15th.—Face hollow, anxious; knees drawn up; less restless; lips dry; tongue glazed and dry; mouth parched, great thirst; urine dribbles away; bowels not open. Brandy and soda-water.

October 16th.—Belladonna ointment to abdomen, on account of the pains. Continue the brandy and soda-water.

October 17th.—Great pain during whole of last night; no sleep. Pulse 100, fuller; tongue glazed; knees drawn up; right cornea, lower border, sloughing. No sickness since the 13th. Dribbling of urine continues; bowels relaxed last night and this morning. Subcutaneous injection of morphia, one grain, immediately; soda-water, brandy; enema of starch and opium.

October 18th.—Flooding began at 5.45 P.M.; pulse feeble; face anxious; eyes upturned; tongue glazed; surface warm. Ice passed into the vagina, and ice-bag applied to hypogastrium. Iced water given to drink.

8 P.M.—The foot of a fœtus presenting, and cord down in vagina. Occasional labour-pains.

8.30 P.M.—A fœtus of about four months' growth, but decomposed, was expelled; the cord, softened by putrefaction, broke off, leaving the placenta in the uterus. The patient being much reduced, and the os uteri being closed, the pulse tremulous and intermittent, it was decided by Mr. Ferguson, Dr. Hall's assistant, who was attending on the case, to trust to the action of ergot rather than to introduce the fingers into the uterus to remove the placenta by extraction, which would have necessitated first the dilating of the os, and, therefore, much irritation of the patient. Ergot was accordingly given, with brandy, but the placenta was not expelled.

11 P.M.—Injection of beef-tea and brandy was given at 10, and another at 11; both retained. At 11.45 the bowels were opened. Pulse still tremulous and intermittent; hands cold; respiration quick; no hæmorrhage; occasional pains, patient then relapsed into a kind of doze.

October 19th.—Has had an injection of brandy and beef-tea every two hours, up to 9 this morning. Bowels open twice since midnight. Has been fed with brandy and milk at frequent intervals during the night. No uterine hæmorrhage externally. Has now hurried breathing, chiefly thoracic; mutters occasionally; pulse scarcely perceptible at the wrist; deglutition difficult; lies with legs flexed on abdomen.

Death took place at one P.M.

Post-mortem examination by Dr. Cayley. Thorax.—Pleuræ normal. Lungs anæmic in front, and congested behind, but everywhere crepitant. Pericardium normal. Heart of normal size; all the cavities contained yellow fibrous clots, and a little black blood and loose black coagula; the valves were normal. The greater part of the abdominal cavity was occupied by a hard kidney-shaped tumour, which lay across it, extending from the brim of the pelvis to the ribs. The lower border was attached by a very short pedicle to the posterior part of the fundus of the uterus. The anterior surface of the tumour was adherent for a short space to the abdominal wall, but there were no marks of recent peritonitis. The uterus itself was slightly enlarged, and the cavity was filled up by a placenta which adhered to the fundus, and by a large clot of blood which projected through the dilated orifice of the uterus into the vagina. Imbedded in the wall of the uterus, which was one and a half inches in thickness, was a fibrous tumour, of the size of a small walnut; and bulging on its surface, without pedicles, were three or four small fibroid outgrowths. Another fibroid outgrowth of almost the size of a moderate sized orange was attached to the lower part of the body of the uterus. The bladder was dilated; the mucous membrane at the base much injected and rough. Both ureters were dilated, and also the pelves of the kidneys; the left was filled with a purulent fluid; its capsule was adherent, surface granular; and in its substance were several little purulent deposits. The right kidney was less altered. The other abdominal organs were normal. On making a section through the large tumour, it presented all the characters of a uterine fibroid; and near its upper surface was a small irregular cavity, containing a small quantity of dark brown serum. The substance of the tumour was firm, tough, somewhat elastic, and the sectional surface presented to the naked eye wavy fibres and interposed granular matter. The conjoined weight of uterus, ovaries, and tumour was six pounds. The peritoneum presented no traces of peritonitis.

Upon this very interesting case, Dr. Davis made the following remarks:—"The rapid growth of the tumour (very unusually so for a fibroid tumour), appeared to be due to the active determination of blood to the uterine organs during pregnancy. The retroversion was produced by its downward pressure on the fundus; but this was remedied by the caoutchouc pessary.

"At some time prior to the entry of the patient into the hospital the fœtus died, and the circulating blood may have become so far poisoned from that source as to explain the constitutional disturbance with which the patient entered the hospital, and which of course continued increasingly in operation up to the patient's death. The purulent deposits in the kidneys, and the sloughing of the cornea, may be referred to the same influence.

"It must not be lost sight of, that the retention of urine, which the patient had borne with patience as long as she could before seeking advice, might have contributed some influence in inflaming the kidney, and causing chronic inflammation of the mucous membrane of the bladder, and it led to the dilatation of the ureters and of the bladder.

"This case, which presented to those who saw it in the hospital such

obscure evidence of pregnancy might, had it been treated by dilatation of the os uteri, and removal of the decayed fœtus and placenta on the appearance of putrid discharge, possibly have ended in a slow recovery.

"I believe, in all cases of constitutional disturbance apparently due to putrescence of uterine contents, it would be a prudent practice to dilate the os till the fingers can be introduced, so as to remove the putrescent substance, whether a fœtus, a mole, a decaying polypus, or fibroid growth."

Dr. Routh said the case was important, viewed in the aspect of what should be done in such cases—*i. e.*, when we had abdominal tumours and pregnancy coexistent. The post-mortem examination revealed a large, fibrous, extra-uterine tumour, with small pedicle; precisely the case most favourable for gastrotomy. Should this patient have been operated upon before labour had taken place, or should labour have been prematurely induced first? He thought the latter: first, because it commonly happened that when abdominal tumours, whether ovarian or uterine, but especially if fibroid, were operated upon before labour, a miscarriage or premature delivery occurred; occasionally death. Secondly, if premature labour was induced, then not only was diagnosis made more easy as to the exact nature and bearings of such a tumour, but the impetus given to its rapid growth by pregnancy was removed.

Dr. Wynn Williams remarked that in a case that came under his care at the Western General Dispensary, he introduced the sound for the purpose of producing premature labour. The case so far differed from the one related, in being an intra-uterine tumour. The patient consulted him at the dispensary, stating that she had not menstruated for three years, and that during that time she had perceived some enlargement of the abdomen, but more so latterly. There was considerable fœtid discharge from the uterus. He diagnosed intra-uterine tumour with subsequent pregnancy; fœtus dead. He introduced the sound into the uterus, moving it freely about, for the purpose as before related, of inducing labour. Labour soon set in, the patient being delivered by the midwife of a still and partially putrid fœtus, together with the tumour. Unfortunately both tumour and fœtus were destroyed, and he had no opportunity of inspecting them. The patient made a good recovery without a bad symptom.

ART. 240.—*Treatment of Sore Nipple.*

(*Meigs' System of Obstetrics.*)

In speaking of the treatment of sore nipple Dr. Meigs says he makes it a point to examine the sore nipple for himself. If he finds an excoriation or an ulcer seated upon a nipple actually tinged with inflammation, and highly sensitive to the touch, he advises some blood to be drawn by a circle of leeches set on the white part of the breast just beyond the areola. This leeching, followed by an emollient poultice of flax-seed mixed with crumbs of bread and milk, to cover the whole nipple and areola, is soon followed by a reduction of the inflammation.

When that is subdued, the crack, fissure, or ulcer begins to heal under the gentle stimulation of a weak solution of nitrate of silver. After the nipple in substance is relieved, the cucumber ointment, or a true pomade, made with scraped pippins stewed in prepared lard or any proper basis of an ointment, causes the cure to be soon effected. As this ointment is a very useful one in many occasions of disorders of the breast, Dr. Meigs does not refrain from giving the formula for its preparation. Take of white wax two ounces; deer's suet six ounces; oil of almonds two ounces; scraped pippins four ounces; dried currants two ounces; alkanet one drachm: mix. Melt in a water bath, and simmer for a sufficient length of time; strain the hot liquid and beat it in a mortar or on a slab to make a proper ointment, stirring until the ointment is cold.

ART. 241.—*Ovariectomy: Adherent Multilocular Ovarian Cyst, twice Tapped: Recovery.*

Under the care of Mr. CURLING.

(*The Lancet*, June 1, 1867.)

The patient whose case is here related had been twice tapped before ovariectomy was performed. Fortunately, however, the adhesions which existed, although extensive, were easily broken through. The notes are furnished by Mr. James Adams.

"Grace G., aged twenty-one, from Cornwall, was admitted into the London Hospital on the 12th of March, 1867. About thirteen months before admission the patient, who had previously enjoyed good health, was attacked with an acute pain in the abdomen, which took place suddenly on pulling on her boots to go to church, and lasted for a few days. Dr. Head, who examined the patient after her admission, supposed that this attack of pain arose from the enlarged ovary being then pressed upwards into the abdominal cavity. About four months afterwards she perceived the abdomen to be increasing in size, and suffered occasional pains there, especially on the right side, but was otherwise well, and menstruated regularly for the first three months after the commencement of the swelling. By the end of six months the tumour had attained a large size, and was tapped by Mr. Mitchell, of Redruth, when about three gallons and a half of dark-coloured, viscid fluid were drawn off. The fluid rapidly reaccumulated, and in about a month after the tumour was as large as ever. A second tapping was performed a week before her admission, but only two quarts of dark-coloured, viscid fluid could be removed.

"On her admission the tumour was very large, pressing up the thoracic viscera, and causing the apex of the heart to beat above the left nipple. The whole of the abdomen was dull, and fluctuated from side to side. Slight anasarca of the lower limbs. The patient ate and drank fairly. No albumen in the urine. Cheerful, and anxious to undergo the operation.

"On March 15th, Mr. Curling performed the operation of ovariectomy in a by-ward, the temperature of which was kept at 70° Fahr. Besides the medical staff, a limited number of dressers were present, care being taken to prevent the admission of any one who had been in the dissect.

ing or post-mortem rooms. The early steps of the operation were as usual, with the exception of the incision being somewhat higher, being carried about an inch above the umbilicus. It was about five inches in length. This disclosed a large cyst, having extensive, though slight adhesions to the abdominal wall in front. These were broken through with the hand; and the cyst was tapped with Wells's trocar, and about a pint of fluid removed, none escaping into the abdomen. The walls of the cyst were seized with strong forceps, and dragged out, bringing into view some smaller cysts and solid growths within; and thus the pedicle of the left ovary was reached. This was secured by Chambers's cautery clamp, and the pedicle was divided by knife-shaped hot-irons. As free bleeding occurred from several vessels, an ordinary clamp was applied; but as the end of the pedicle could not be secured in this way outside the abdomen without considerable tension, the pedicle was transfixed by a double ligature, which was tied on either side. The ends of the ligatures were brought out so as to secure the pedicle close to the abdominal wall. The wound was then accurately closed by deep and superficial sutures. A broad flannel bandage was placed around the abdomen, and the patient placed in a carefully warmed spring bed. During the operation the intestines were freely exposed, and some blood escaped into the peritoneal cavity, but was carefully sponged up. Some omentum adherent to the upper part of the cyst had been torn away; and an omental vessel, which bled freely, was at first cauterized, and then tied, the end of the ligature being left out at the wound.

"Shortly after the operation the patient began to vomit, and continued to do so frequently until the morning of the 18th. During this time enemata of brandy and beef-tea were administered, the first one containing also forty minims of tincture of opium. Ice, brandy, milk, and champagne in small quantities were occasionally taken by the mouth when the vomiting was at all less frequent. On the 17th March the pulse was 130, temperature 102, respiration 22.

"March 18th.—The vomiting has ceased. No pain or tenderness in the abdomen; tongue red and dry in the centre. Pulse 130, temperature 100, respiration 15. Takes a fair quantity of fluid nourishment. In the evening she was comfortable, and slept several times.

"March 19th.—About five o'clock this morning she was seized with violent pain in the epigastrium, with much tenderness; but this was strictly confined to that region, and was no doubt explained by the fact of her having taken more than the stomach could digest. She was relieved in a few hours by a mustard-plaster. After this, one or two more nutritive enema were administered. Later in the day she was much better, the bowels acting twice of their own accord. Tongue rather coated, but moist. Pulse 100, temperature 100, respiration 20. Takes fluid nourishment at regular intervals.

"On the 22nd the deeper sutures were removed. The edges of the wound had united along the middle, there being one ligature hanging out towards the upper part (from omentum), and the main ones from the bottom. One of the lower ones came away. On the 28th the discharge from the bottom of the wound became very copious and slightly tinged with blood; and on the following morning (fourteen days after operation) the main ligature came away, followed by the discharge of a large quantity of pus. The single ligature towards the upper part

remained firm up to the 3rd of April, when it came away after being attached for a few hours to a piece of elastic. In the meantime there had been a return of vomiting for twenty-four hours, the matter vomited being tinged with green. Pulse 108, temperature 99, respiration 22.

On the 31st the pulse was 96, the temperature 99, and respiration 20.

On April 5th she appeared to be very well constitutionally, eating and drinking very fairly, and gaining strength; but about the centre of the wound, or rather cicatrix, there was a circular hole nearly as large as a shilling, and about half an inch deep, with very pale edges, which discharged unhealthy pus. To this was applied a solution of nitrate of silver (twenty grains to the ounce) several times, and cotton wool dipped in a solution of the same (two grains to the ounce) was kept applied to it; and on the following day all tension was removed from the edges by gently approximating them with a piece of strapping. In a few days the wound assumed a more healthy character, and the patient was able to sit up for several hours a day, and continued to gain strength rapidly. She was discharged cured on April 26th, exactly six weeks after the operation.

ART. 242.—*Treatment of Menorrhagia.*

Hospital Out-Patient Practice.

(*The Lancet*, May 18, 1867.)

We have collected from some of the hospitals a few hints respecting the treatment of the different pathological conditions of which this symptom is so frequently an exponent, and these will probably be interesting as well as useful.

St. Bartholomew's Hospital.—Dr. Greenhalgh remarks that by far the greater number of cases of menorrhagia are due to fibroid or fibrous out-growths or in-growths from the uterus, which are mostly treated by a pill composed of one-twelfth of a grain of bichloride of mercury combined with quinine and belladonna, to which is frequently added small quantities of the aqueous extract of aloes, taken night and morning for some weeks; a mixture composed of dilute sulphuric acid, tincture of Indian hemp, mucilage, liquid extract of ergot, syrup, and infusion of quassia, three or four times a day, being ordered just prior to and during the catamenial flow. Between the "periods" a draught of iodide or bromide of potass, with the liquid extract of ergot, sal volatile, and infusion of quassia, is given twice a day. If the loss of blood have been very great, or the patient be anæmic, the tincture of sesquichloride of iron with the liquid extract of ergot, chloric ether, syrup, and infusion of quassia, twice or thrice a day, with the pills, are prescribed. Where the patient is more or less plethoric, which is rarely the case, the sulphate of magnesia and digitalis, either with dilute sulphuric acid or salines, and scarifications or leechings of the cervix uteri, are found most serviceable. In cases of subinvolution of the uterus, attended with menorrhagia due to imperfect recovery from labour or miscarriage, hyperlactation, or other affections leading to

constitutional debility, especially in the strumous habit, the syrup of the iodide of iron with or without ergot, and with the pill above referred to, are found very efficacious. A similar course is pursued, sometimes with, sometimes without, the pills, where the commencement of malignant disease is the exciting cause of this symptom.

In cases of Bright's disease and other affections interfering with the stasis of the blood, gallic or tannic acid, usually combined with henbane, prove valuable hæmostatics; some preparation of iron with arsenic being usually ordered between the "periods." Where polypi, portions of retained ovum, or fibrinous clots are detected, they are removed.

Dr. Greenhalgh particularly draws attention to the frequency of menorrhagia as the result of collections of fæcal matter in the large intestines and rectum, and of hepatic derangements occasioning mechanical irritation and congestions of the hæmorrhoidal vessels and uterus. For calculi, in addition to the pills, he prescribes repeated doses of the compound decoction of aloes, with tincture of nux vomica.

In all cases he recommends quiet of mind and body; rest in the recumbent posture; nutritious and unstimulating diet; cold acid drinks; tepid or cold water vaginal injections; great moderation or total abstinence from sexual excitement.

He now and then has recourse to the following means:—Matico-cotton plugs or pessaries; astringent vaginal injections; sponge tents; iodide of lead and atropine pessaries; iodized cotton; Hodge's and other pessaries in cases of misplacements of the uterus, &c.

Dr. Greenhalgh adds that, *cæteris paribus*, menorrhagia is more prevalent among women of lax fibre, more especially if they have had many children or abortions in rapid succession; in those subject to acne, pruritus, or eczema, and about the climacteric; in those of intemperate habits of various kinds, &c. He considers it is by no means always easy to determine whether the case is one of menorrhagia or threatened abortion.

University College Hospital.—In all cases Dr. Hewitt attaches much importance to rest during the "period." Daily use of the vaginal douche of cold water is a valuable means of diminishing the congestion and restoring the lost tonicity of the uterus. The tincture of iron, in doses of from fifteen to twenty minims three times a day, combined with a few drops of glycerine, is very frequently given, and found efficacious where the system is debilitated from repeated losses of blood. In many cases Dr. Hewitt administers a few doses of ergot in powder (half a drachm three times a day).

The point to which the greatest attention is directed is the procuring an exact diagnosis of the state of the uterus. Obstinate menorrhagia is often, Dr. Hewitt says, found to be due to some physical alteration of the uterus, overlooked and consequently not treated. Of the latter class of cases, retroflexion of the uterus is a most marked instance.

Great Northern Hospital.—For the last few years Dr. Murray has treated cases of menorrhagia—not dependent upon growths, displacements, or other causes requiring special and manipulative interference—by the combined use of gallic and sulphuric acids principally, with as much rest as can be obtained. The disease has generally shown itself

in one of the three following forms:—1. Where at each period there has been a more decided loss than natural. 2. Where, from excessive debility, a bloody discharge has continued from month to month. 3. Where, after childbearing, a large uterus with a patulous os is continually pouring out blood, and every now and then doing so in gushes accompanied by clots. In all these degrees of this troublesome and weakening complaint, Dr. Murray is in the habit of prescribing from five to ten grains of gallic acid with from fifteen to twenty-five minims of dilute sulphuric acid, twice or thrice daily, for a period sometimes extending over two months. Occasionally he has found the use of mustard applied over the sacrum every other night, or even a blister on the same spot, useful as a help in the third form of this hæmorrhage. He has also advised the application of cold water to the lower part of the spine in cases of continued discharge (not leucorrhœal) between the periods.

Dr. Murray has not found the use of iron at all satisfactory; but he has administered it with good effect in some cases after a continuance of the acid mixture, and all arrest of hæmorrhage for some time. The use of vaginal injections has not been recommended by Dr. Murray; but in many cases cold-water enemata have been extremely useful at those moments when the gushes of blood with clots take place, a gentle non-irritating purgative being also given.

Charing-Cross Hospital.—Dr. Parson recommends rest as much as possible in *all* cases of menorrhagia; and the avoidance of household duties, at least for a few days, during the severity of the symptoms.

The astringent mixture in general use amongst the out-patients consists of tannic acid (from five to ten grains), dilute sulphuric acid (from twenty to thirty minims), and the liquid extract of ergot of the British Pharmacopœia (from five to ten minims), every four or five hours for the first few days. If there be much pain attending the menorrhagia, Dr. Parson usually orders from five to ten minims of the tincture of Indian hemp to each dose. Dr. Parson has never seen any ill result following the use of the Indian hemp, but he has generally employed it in the former combination, or with other astringents.

As a general rule, all the preparations of iron are avoided in menorrhagia, even though there be anæmia and pallor, since iron invariably increases the vascularity of the pelvic organs; and he employs the preparations of iron only when two or three menstrual periods have been passed normally.

Aloes also is avoided, in most of its preparations, in *all* cases of menorrhagia, since it is apt to increase the irritability and vascularity of the pelvic viscera.

Menorrhagia associated with metritis is treated by astringents for the first few days. The bowels are regulated by a saline aperient—the bitartrate of potash in drachm doses, with quinine in half to one grain doses, taken every morning. After the period has ceased the usual treatment of metritis is employed.

Menorrhagia associated with a granular state of the mucous membrane of the cervix uteri is treated by astringents and tonics generally. A local astringent consisting of the solution of chloride of zinc (Burnett's), from twenty to thirty minims to every pint of water, is also used by the

patient two or three times a day as a douche. Dr. Parson finds that a stronger astringent than this for local application is seldom, if ever, required in these cases.

The cases of menorrhagia associated with polypi are not treated with any benefit as out-patients, but are admitted as in-patients of the hospital.

Cases of menorrhagia resulting from the presence of fibroid tumours of the uterus are treated usually as in-patients also.

Menorrhagia arising from cancer of the uterus, usually resists all treatment. From twenty to thirty minims of solution of chloride of zinc to a pint of water often is more useful than any other douche in diminishing the fetor, and to some extent the amount of the discharges.

In the following cases of menorrhagia, where there are no local lesions of the generative organs, a brief summary of the treatment is as follows:—

From debility, it is treated by the astringents during the period; after the period has ceased tonics are employed, excluding iron and aloes until the tendency to excessive menstruation has ceased, then the preparations of iron with *nux vomica* or strychnine become valuable.

When depending on congestion of the portal system, it is relieved by a daily aperient of bitartrate of potash with quinine, and with or without five or ten grains of jalap in each dose, taken every morning, and avoidance of alcoholic stimulants.

Associated with mitral or aortic obstruction, menorrhagia is most difficult to relieve, and is treated on general principles—of diminishing the congestion of the pelvic organs as much as possible, and giving tone to the distended capillaries and veins.

Menorrhagia with emphysema or chronic bronchitis is also exceedingly difficult to relieve, and when relieved for a time, often returns.

Resulting from kidney disease and albuminuria, it is treated by warm clothing; aperients daily of compound jalap powder with quinine, given in the mornings, and the sesquichloride of iron with *nux vomica* two or three times a day, generally with marked improvement.

When associated with spongy gums and a scorbutic state, it is treated by the citrate and chlorate of potash; the patient being directed to avoid all salted meat; to take the juice of half a lemon every day; occasionally tannic acid is given in addition.

ART. 243.—*A Case of Craniotomy; with Clinical Remarks.*

Under the care of Dr. GRAILY HEWITT.

(*British Medical Journal*, February 16, 1867.)

The notes of this case are given by Mr. Hughes, obstetric assistant, University College Hospital:—

Mrs. Y., aged twenty-three, pregnant for the first time, applied for a letter, December 10th, 1866. She expected the termination of her pregnancy about the middle of January. Her height was 4 feet 9 inches.

Both her tibiae were curved forwards in a very decided manner, though not to a considerable degree.

Her mother stated that, as a child, the patient was very weakly. She was very backward in cutting her teeth; and the legs soon became bent and crippled. She attended this hospital with the child for about two years. The child was not able to walk properly until the fourth year. It is also suspected, from the mother's statement, that the child had enlargement of the head at the same time. The patient enjoyed very good health ever since her sixth year of age.

The pregnancy presented nothing remarkable. On January 10th, the patient lost some liquor amnii, and pains were felt. One of the pupils saw her then, and found on examination, that the os was very high up in the pelvis, and scarcely admitted the finger. On January 14th, there was a great loss of liquor amnii; and pains, more severe, but irregular, occurred until January 15th. On January 15th, Mr. Hughes, the obstetric assistant, saw the case; Mr. Lloyd, who was then attending, having diagnosed pelvic deformity. The pains were now severe, and occurring with more regularity. Upon examination, Mr. Hughes found that the head, which was presenting, had not descended into the pelvis at all, on account of the great projection forwards of the sacral promontory. On auscultation, the child was found to be alive. Dr. Graily Hewitt's attention was then called to the patient.

Jan. 17th, 9.30 A.M.—Dr. Hewitt found the os of the size of a shilling, and a very small portion of the head only engaged in the brim of the pelvis. The sacral promontory was very readily felt; antero-posterior measurement appearing only about two inches at the brim (afterwards, when more carefully measured, it was found to be about $2\frac{1}{4}$ inches). There was more space found to the right side than the left. The sacral promontory formed a kind of shelf, on which the head rested. The position of the head was found to be occipito-posterior median. The bladder below the head was distended with a little urine, which was drawn off by the catheter. The fœtus was found to be alive, with a pulse of 146 to 150. Pains were now constant. The patient's pulse was good, 80 in the minute. The expression of the countenance was good. The vagina was found to be small. Mr. Hughes having given chloroform, Dr. Graily Hewitt attempted to turn. This was found to be impossible without too great a risk of rupturing the uterus, the posterior part of which, resting on the sacral ledge, was of extreme tenuity. The uterus admitted the hand with exceeding difficulty, owing to its persistent tonic contraction. The knee was, however, seized; but all reasonably forcible attempts to alter the position failed. The fœtus became convulsed during these attempts, and pulsation in the cord less and less evident. At the end of half an hour, the perforator was used, and the head delivered by the crotchet. The crotchet answered in this case better than the craniotomy-forceps. Delivery was effected at 11 A.M., and the placenta expelled about ten minutes afterwards. The uterus contracted firmly. A binder was put on; and the patient was left about half an hour afterwards, well, but exhausted. The child was a male; and the head was quite of an average size. Dr. Graily Hewitt directed food to be given frequently, and half an ounce of brandy every two hours.

In the evening, at eight, Mr. Hughes found her doing well, and ordered an opiate draught.

Jan. 18th.—The patient slept a little in the night. She was doing well.

Jan. 22nd.—The report was, in every sense of the word, favourable.

Dr. Graily Hewitt, in his clinical remarks on the foregoing case, observed that the extremely small diameter of the pelvis at the brim forbade the use of the forceps; the child being at full term, and the head well ossified. The only resource was turning; and it is possible that, if this operation could have been performed before the liquor amnii had escaped, the child might have been born alive. But it was not probable, owing to the great distortion. Considering the time which had elapsed from the commencement of pains, the patient was well at the time of the operation. With reference to the crotchet, Dr. Graily Hewitt observed, that he preferred the craniotomy-forceps, as a rule; but the crotchet had sometimes an advantage, as in this case, that it allowed the head to rotate, and accommodate itself better, in its collapsed state, to the shape of the brim, than when the craniotomy-forceps was applied.

ART. 244.—*On the Treatment of Labour complicated with Ovarian Tumour.*

By W. S. PLAYFAIR, M.D., Assistant Obstetric Physician to King's College Hospital.

(*The Lancet*, May 25, 1867.)

At a meeting of the Obstetrical Society of London, held on May 1st, Dr. Playfair related the particulars of a case of labour obstructed by ovarian tumour which had come under his observation. The pelvis was occupied by a solid ovarian growth, which was not diminished by puncture, delivery being finally effected by craniotomy. Dr. Playfair next proceeded to analyse the details of fifty-seven similar cases, collected from various sources, pointing out the results of the various methods of treatment employed. He showed that nearly one-half of all the cases left to nature had proved fatal, probably on account of the bruising and confusion to which the tumour was necessarily subjected during the passage of the head. On the other hand, all the cases in which the tumour had been diminished in size by puncture recovered; and he strongly advocated this treatment, even when there was apparently sufficient room to admit of delivery without it. One-half of the cases in which craniotomy was resorted to had also ended fatally. In several of these cases perforation was only employed because the child was dead, although there was sufficient room for the passage of the head; so that the results of this treatment were also most unfavourable for the same reason as when the case was left to nature. Dr. Playfair concluded by briefly reviewing the history of the other methods of treatment employed, such as turning and the Cæsarian section.

ART. 245.—*On the Diagnosis of Renal from Ovarian Cysts and Tumours.*

By T. SPENCER WELLS, F.R.C.S.

(*Dublin Quarterly Journal of Medical Science*, February, 1867.)

Solid renal tumours, whether cancerous or innocent, may resemble the malignant, pseudo-colloid, or cysto-sarcomatous tumours of the ovaries; while different varieties of ovarian cysts may be closely simulated by different forms of pyelitis and pyonephrosis, hydronephrosis, cystic degeneration, and the growth of hydatids in the kidney. Perhaps the diagnosis may be facilitated by attention to the following propositions:—

1. Although intestine is sometimes found in front of ovarian tumours, and sometimes behind movable renal tumours, there are very rare exceptions to the general rule, that renal tumours press the intestines forward, and ovarian tumours press them backward. In other words, ovarian tumours are in front of the intestines, renal tumours are behind the intestines.

2. Large tumours of the right kidney usually have the ascending colon on the inner border of the tumour. Tumours of the left kidney are usually crossed from above downwards by the descending colon.

3. The discovery of intestine in front of a doubtful abdominal tumour should lead to a careful examination of the urine. It is possible that one kidney may be diseased and the urine quite normal, because the healthy kidney alone secretes urine. But the rule is that either blood, pus, or albumen, or characteristic epithelium are detected, or some history may be elicited of their being detected at some former period.

4. If any doubt be entertained whether a substance felt between an abdominal tumour and the integument be or be not intestine, percussion may not solve the doubt, because the intestine may be empty and compressed. But (*a*) an intestine when rolled between the fingers contracts into a firm, cord-like, movable roll; (*b*) the patient may be conscious of the gurgling of flatus along it, or the gurgling may be heard on auscultation; (*c*) the intestine may be distended by insufflation, after passing a long elastic tube through the rectum.

5. Ovarian and renal cysts may both be subject to great alterations in size. When the kidney is the seat of disease the fluid usually escapes by the ureter and bladder. An ovarian cyst can only empty itself through the bladder after adhesion and a fistulous opening. It may discharge through the Fallopian tube and uterus, or into an intestine, or through the coats of the vagina. In either case the physical and chemical characters of the fluid discharged will be the chief guide in diagnosis.

6. If a correct history can be obtained, it may be expected that a renal tumour has first been detected between the false ribs and ileum, and that it has extended first towards the umbilicus, next into the hypochondrium, and lastly downwards towards the groin. An ovarian

tumour has, in all probability, been first noticed in one inguinal or iliac region, and has extended upwards and inwards.

7. It is only a very small ovarian tumour, with a long pedicle, which could be mistaken for a floating or movable kidney. The latter may be recognised by its characteristic shape, though it is often so misplaced that the hilus is turned upwards. The kidney is usually felt between the umbilicus and false ribs, and may be pushed upwards and downwards, or laterally to a varying extent, or into the lumbar region to the normal position of the kidney. When the kidney is pushed away from this position the sound, on percussion, becomes tympanitic.

8. Just as renal tumours are usually associated with some evidence or history of hæmaturia, calculus, albuminuria, nephritic colic, or some notable change in the quantity or state of the urine, so ovarian tumours are usually associated with some change in the quantity and regularity of the discharge, or with suffering at the catamenial period, and with some alteration in the mobility or situation of the uterus. But, as in some rare cases of renal disease the urine may be normal, so in some rare cases of ovarian disease there may be nothing abnormal to be discovered in any of the pelvic viscera, or in their functions.

ART. 246.—*Case in which Ovariectomy was twice Successfully Performed on the same Patient.*

By T. SPENCER WELLS, F.R.C.S.

(*Proceedings of the Royal Medico-Chirurgical Society*, vol. v. No. vi.)

The author commenced by alluding to three cases in which ovariectomy had been performed twice on the same patient. The first was by Dr. Attie, of Philadelphia, sixteen years after the previous operation by Dr. Clay, of Manchester. The second was by the author, nine months after an operation by another surgeon. The third was by Dr. Bird, fourteen years after one of his own operations. The first case was successful; the second and third were not. The case now related is believed to be the first in which ovariectomy has been performed successfully twice on one patient by the same surgeon. In this case the author removed the left ovary of an unmarried woman, twenty-four years of age, in February, 1865. The tumour weighed twenty-nine pounds. The right ovary was then healthy. The patients recovered, and remained well more than a year. But, in about fifteen months, disease began in the right ovary, and advanced so rapidly that ovariectomy was performed for the second time eighteen months and a-half after the first operation, and a tumour, weighing eighteen pounds, was removed with complete success. A full account of both operations was given, with a description of the tumours removed; and some remarks were added upon the comparative frequency of disease in one or both ovaries, and upon the appearance of disease in one ovary after the other had been removed. The author showed that the right and left ovaries are found diseased with equal frequency; and that in from one-third to a half of

the cases where the disease has gone on to its termination in death, *both ovaries* are diseased. But he asserted that both ovaries are affected in smaller proportion in the earlier stages of the disease. In the first 150 cases in which he performed ovariectomy, he only removed both ovaries in seven, and in only three cases was disease in an early stage suspected in the ovary not removed. In three the ovary was not removed, but examined and found healthy, had become diseased afterwards. In two of these cases the disease was malignant. The rule appears to be established, that after a successful ovariectomy the patient is restored to good health; and although there are occasional exceptions to this rule, it is satisfactory to know that if the remaining ovary should become diseased, the first operation need not add much to the difficulty of the second; and that of four cases in which a second ovariectomy has been performed, two have proved successful.

ART. 247.—*Absence of the Vagina: large Tumour formed by Retained Menses: Formation of a Vagina and Perforation of Sanguineous Sac: Death from Effusion of Blood into the Peritoneal Cavity: Cause and Mechanism of this Effusion.*

By M. GOSSELIN, Hôpital de la Pitié, Paris.

(*Gazette des Hôpitaux*, No. 57, 1867.)

On March 18th, 1867, A. (Clemence), aged eighteen years, was admitted into La Pitié under the care of M. Gosselin. The young woman was apparently endowed with a good constitution, and up to the age of sixteen years had been affected with no serious malady; but since that period has experienced every month pains in the abdomen, kidneys, and thighs. These pains are acute, last from three to eight days, and are subject to exacerbations which sometimes compel the patient to keep to her bed. These crises have for some time been attended with increased pain. There has never been any discharge from the vulva of blood or whites, nor has there been any other functional disturbance.

On an external examination of the abdomen, a large round tumour was found, occupying the median line, extending three inches above the umbilicus, and more than twenty-four centimetres above the pelvis. In each iliac region and reaching as high as the umbilicus, was another tumour, hard, firm, and, like the first, movable. The median tumour was undoubtedly formed by the distended uterus, and the lateral swellings by a distension of the Fallopian tubes. At the entrance of the vulva there was an opening through which the finger could be passed for a short distance; this was the dilated urethra, for through it a female catheter was passed and urine was drawn off. No vaginal opening was discovered. The finger introduced into the rectum was separated from the catheter by a thin partition, from three to four centimetres in depth, and a very large hard tumour was felt above, which seemed to fill up a great part of the pelvic cavity, and presented no very distinct

signs of fluctuation. This examination justified the supposition that the inferior third of the vagina was absent, and that the upper two-thirds of the canal, together with the uterus and Fallopian tubes were filled with menstrual fluid, which had been collecting for a period of at least two years. All these affections were manifestly due to the retention of the menstrual discharge. The patient was doomed to a certain, and probably speedy death. Under these circumstances, M. Gosselin considered that it was necessary to do something. He was, however, unwilling to operate until some days after the crisis proclaiming a menstrual epoch. This crisis arrived at the end of March and was very violent, the pains being at times so severe as to make the patient cry out. On April 6th, 1867, five days after the accession, M. Gosselin proceeded to operate. The patient was fixed in a lithotomy position and put completely under the influence of ether, which was chemically pure. M. Gosselin made a transverse incision in front of the anus, then putting the bistoury on one side, he introduced the fingers into the wound, and continued the operation by separating the tissues, *par decollement*, as recommended by Amussat. Pushing the rectum backwards and the urethra forwards, he reached without much difficulty, and in a few minutes, the lower part of the tumour. A large trochar was then cautiously slipped over the finger, and a puncture made into the sac, from which there flowed a small quantity of thick viscous black blood. It had been the intention of M. Gosselin, if the blood had flowed freely, to have rested contented with this puncture and to have allowed the fluid to flow away gradually; but as this was impossible he was compelled to enlarge the orifice with the bistoury. A great quantity of an extremely thick liquid of the colour and consistence of *crème au chocolat* was then seen to come away; and after the patient had been placed in her bed, the median tumour was found to be reduced in size by two inches. Opium pills were then given every hour.

April 7th.—The patient had frequent colicky pains yesterday. She has taken only broth; had a good night. This morning she is doing well, notwithstanding a slight headache. Absence of vomiting; colic and pain on pressure. Pulse somewhat frequent; appetite good. The median tumour has descended to a point an inch below the umbilicus, and the lateral swellings still lower. Laudanum cataplasms were ordered to be applied.

April 8th.—Has had a fair night; is slightly pale; complains of pain in the epigastrium and in the thighs; some inclination to vomit; pulse frequent. M. Gosselin introduced his finger into the wound, but could not penetrate into the opening made into the vagina. A female catheter was passed. The fluid which flowed away, and had not ceased to be discharged since the operation, is less viscid, of a greenish colour, and seems to be mixed with pus. The median tumour has descended a little more. The lateral tumours have moved nearer to the median line and the crural arches.

April 9th.—Much colic yesterday; no sleep; pain in the right iliac fossa and the fold of the groin; has brought up her food twice; no stools, white tongue; pulse frequent; skin hot. The liquid which flows from the sac is fetid. The median tumour continues to descend; that

formed on the right side has become larger and harder. Calomel and aconite were prescribed.

April 10th.—Bowels have not yet been relieved; vomiting of food and bile; tongue foul; pulse small and very frequent; no sleep; abdomen slightly tympanitic; painful on the right side and in the epigastric region. M. Gosselin enlarged slightly the contracted opening made into the vagina. An enema was ordered to be administered.

April 14th.—Vomiting continues to be frequent, the enema has had no effect. Pains over the whole abdomen, which is tympanitic. Extreme adynamia; pulse cannot be counted; extremities commencing to be cold. The patient died at three o'clock in the afternoon.

Autopsy.—The abdominal cavity having been opened there was found within it a great quantity of chocolate coloured fluid, manifestly from the same source as that which flowed away during the operation, although it was more limpid and of a lighter colour, on account of its mixture with peritoneal serosity. The omentum was red, much injected, thick, and covered with some false membranes. It was stretched tightly over the intestines, and below was bound to the uterus and Fallopian tubes by adhesions, some of which were recent, others firm and of long standing. The fundus of the uterus was situated close to a point midway between the pubis and the umbilicus. The lateral tumours were placed a little lower. On each side there was a fusion of the Fallopian tube with the ovary. The orifice and fringes of the Fallopian tube could not be found. The inner half of each Fallopian tube was firm and dense, and the uterine orifice was dilated, so that the two sacs formed by the distended canals could not be emptied through the uterus. On the superior part of the extended or ovarian half of each tube, which was much thinned here by distension, were found on the right side two openings, on the left side one, through which could be pressed out some chocolate-coloured fluid similar to that discovered in the peritoneal cavity. It was then through these accidental openings in the Fallopian tubes that the fluid had been evacuated and effused into the abdominal cavity, causing death by peritonitis. The three rents in the tubes were found situated exactly on a level with the old and very firm adhesions with the omentum, which fact may seem to account for their existence. The uterus emptying itself, and descending, dragged upon the Fallopian tubes, and with these upon the omentum, which was supported above by the stomach, pushed forwards by gaseous distension of the small intestines, and perhaps deprived of the natural extensibility by the previous attacks of peritonitis; the omentum being thus held above whilst the adherent tubes descending with the uterus dragged it down below, the rents which had been the cause of death resulted.

Remarks.—This is not the first instance in which the surgeon has seen his patient, who had been affected with retained menses, due either to absence or to imperforation of the vagina, succumb to a severe peritonitis. But why, and how, is this peritonitis developed? M. Bernutz is inclined to think that it is caused by the passage of some of the collected blood into the peritoneal cavity through the ovarian orifice, and that the passage is occasioned by the contraction of these openings. In M. Gosselin's case, however, the ovarian orifices of the Fallopian

tubes allowed no passage, as they were completely obliterated; and another point in this case, not less evident, is that the effusion was made through accidental openings or rents which had been produced either through extreme distension or through dragging upon the tube. The extreme distension had, without doubt, produced the thinning of the walls of the Fallopian tube; but it would be strange, if in this case, as in those reported by M. Bernutz, the rent had been produced directly after the operation. It is undoubted, on the other hand, that these tumours formed by the tubes descended with the uterus as this organ diminished in size, and in descending stretched and dragged down the omentum. Rupture was produced by the traction which was thus exerted at the spot where the old adhesions of the omentum passed on to the thinned part of the dilated Fallopian tubes.

M. Gosselin, in a clinical lecture upon this case, insisted upon these two points:—1st. In presence of cases of this kind advice ought to be given, not to put off the operation until the uterus and its tubes are very much distended, and until the attacks of partial peritonitis attacking the patient during the menstrual epochs have had time to form strong adhesions; the dragging of which, when the uterus descends, may cause a part of the sac to be torn away. The patients should be treated and operated upon at the first, second, or third mentioned period. 2nd. When, in cases of imperforation of the uterus and vagina, tumours are found in the median line and in the lateral regions of the abdomen ascending sensibly higher than the umbilicus, there is greater reason to fear death from effusion than in those cases where the menstrual retention does not reach so high as the navel. The rare cases of success which have been observed by Amussat, Delron, and Dolbeau, were those of women in whom the tumour did not pass above or failed to reach the umbilicus, and in whom consequently the uterus as it was emptied might not have dragged down and extended the peritoneal adhesions that existed.

ART. 248.—*On Amputation of the Cervix Uteri, and other Methods of Local Treatment, in Cases of Malignant Disease of the Uterus and Vagina.*

By J. BRAXTON HICKS, M.D.

(*Guy's Hospital Reports*, 3rd series, vol. xii.)

For amputating the neck of the womb, Dr. Hicks prefers the use of the *écraseur*, a very strong rope of wire being passed around the neck, to the shaft of the instrument, which should be placed in front of the cervix. He states that he has operated, or been present, in more than twenty-eight cases, and has never seen any fatal result or any untoward symptom whatever.

As a styptic to check offensive discharges, Dr. Hicks has found the anhydrous sulphate of zinc, which has been much commended by Sir James Simpson, very efficient. It is readily made by placing the ordi-

nary sulphate of zinc in a porcelain basin over a spirit-lamp. The salt first melts in its water of crystallization, after which it gradually dries; when completely dried it can be powdered. A good form of application is to mix it with glycerine to a paste-like condition. It has a powerful effect upon the abnormal tissue, and but little or none on the sound, and can therefore be used liberally without fear of injury. Should it cause much pain, which it seldom does, this is readily relieved by injection of warm water.

ART. 249.—*Removal of the Uterus and its Appendages in a Case of Procidencia Uteri.*

(*American Journ. of Med. Sciences*, February, 1867.)

Dr. S. Choppin relates a case of this. The subject of it was a woman thirty-eight years of age. The tumour was six inches in length and three and a half in breadth. The operation for narrowing the vagina having failed to afford relief, Dr. C. determined to remove the uterus and its appendages. Accordingly, on the 12th January, 1861, the patient being brought under the influence of chloroform, Dr. C. operated in the following manner:—

“The tumour was seized by a pair of vulsellum forceps, implanted in the neck of the uterus, dragged down as far as possible, and held steadily by an assistant. A circular incision was then made through that portion of the vagina attached to the neck of the uterus, so as to completely separate it, with a view of drawing the organ down and separating it from its peritoneal attachment; but I was thwarted in my attempt, by adhesions which were found to exist anteriorly between the anterior wall of the vagina and uterus to the posterior wall of the bladder, and posteriorly to the lower wall of the vagina and anterior walls of the rectum. By a careful dissection I severed the anterior and posterior adhesions, thus permitting of further traction downward of the uterus, and exposing a pedicle made up of the peritoneal attachments of the organ. The hæmorrhage, which thus far had been quite profuse, was arrested before proceeding any further. The loop of ‘Chassaignac’s Ecraseur’ was now thrown around the peritoneal attachments and gradually tightened, during a period of twenty-five minutes, when its division was completed, and the uterus, left Fallopian tube, and left ovary removed. It was found that the right ovary had not descended, and, consequently, the right Fallopian tube was comprised in the pedicle of the tumour, and severed near the body of the uterus. Not considering their removal necessary to the success of the operation, they were allowed to remain in the abdomen. No blood followed the use of the ecraseur. At this stage of the operation, hernia of a loop of intestine took place. This was reduced, and further descent prevented by pressure of the hand of the assistant over the vulva, until permanent closure of the opening in the vagina could be effected. This was done by means of Sims’ clamp suture. The inverted vagina was then reduced, the patient removed to

her bed, placed upon her back with the pelvis elevated, and a full dose of opium administered. The patient rested well all that night. The next day no febrile reaction whatever occurred, although she complained of some tenderness or soreness over the abdomen. On the third day suppuration began, but, an examination by the speculum showed that most of the vaginal wound had healed by first intention. The suppuration, however, continued, quite profuse at times, for about three weeks, when the wire sutures and clamps came away. She was again examined with the speculum, and complete cicatrization of the wound was found to have taken place. The general health of the patient began rapidly to improve from that moment. On the 19th day of February she was presented, in my clinical lecture, to the class of the 'New Orleans School of Medicine,' with her womb in her hand, thus demonstrating that the uterus could be removed without causing death. The patient remained under observation until the following April, during which time her condition improved, so that she presented, at the time of leaving our infirmary, a robust and healthy appearance. Returning to labour and usefulness, she continued to enjoy good health, as I have been informed, until the spring of 1864, when she succumbed to an attack of dysentery."

ART. 250.—*Treatment of Vaginitis.*

By M. NONAT, La Charité, Paris.

(*Journal of Practical Medicine and Surgery*, January, 1866.)

Whether vaginitis be simple or virulent, acute or chronic, M. Nonat asserts that of all the various remedies hitherto recommended, injections, medicated plugs, or cauterization, that which he deems preferable, and has invariably resorted to for ten years with constant success, is the application to the mucous membrane of a solution of nitrate of silver. This method, however, cannot be successful unless every part of the diseased surface is brought into direct contact with the remedial agent. When a cure is not effected, M. Nonat contends that a fold of the vagina, and more especially the cul-de-sac which separates the vagina from the uterus, must have escaped cauterization. The operation should be performed with a slender camel-hair brush, and a larger lint pencil with which a concentrated solution should be carefully laid on.

M. Nonat uses the bi-valvular speculum, which causes less pain than any other when introduced into a vagina in a state of inflammation. When this instrument has been inserted, and the cervix exposed, the surgeon cauterizes with the smaller brush all the apparent and tangible part of the os tincæ, and also the surrounding sulcus. He then with the larger brush applies the solution to the other parts of the mucous membrane while he withdraws the speculum. Thus, if the portion of the cul-de-sac which surrounds the cervix has not been sufficiently modified, it comes subsequently into contact with the other parts of the mucous lining, over which the caustic solution has been liberally applied.

This treatment at first aggravates the inflammatory secretion; but

after an interval of five or six hours these symptoms subside, and in the course of a few days improvement sets in. The operation should be repeated every five or six days, until a diminution of the discharge, and a favourable change in its nature are observed. A weaker solution may then be used, and applied every ten or twelve days only. In the intervals M. Nonat prescribes, if necessary, poultices over the hypogastric region, baths, and cool sedative injections, which remove all matter likely to occasion irritation.

In his treatise on *Uterine Diseases*, M. Nonat adduces the particulars of ten instances of vaginitis in every stage of intensity, in which a cure was effected after five or six such cauterizations on the average, and after seven or eight in the most severe cases. In one patient the inflammation of the vaginal cavity was extremely violent, and the usual mode of cauterization had been twelve times instituted without result, but the affection yielded after seven careful applications of the caustic in the manner above indicated.

From these cases, and from the professor's subsequent experience, it may be inferred that the common method of cauterization is insufficient in some varieties of vaginitis, on account of the imperfect contact of the remedial agent with the whole of the mucous surface, and that peri-cervical cauterization is the most reliable plan of treatment which can be adopted.

M. Nonat invariably dwells on the expediency of avoiding astringents and caustics when uterine or peri-uterine inflammation coincides with vaginitis. This complication should in the first place be removed, for if this caution be neglected, the womb and its appendages may be expected to resent injudicious interference in the most distressing manner.

ART. 251.—*Interstitial Placentitis and its Influence upon Pregnancy and Labour.*

By A. HEGAR, and RUD. MATER.

(*Virchow's Archiv*, March, 1867; *Gazette Hebdomadaire*, No. 19, 1867.)

Under the title of interstitial placentitis the authors have studied a form of morbid change of the placenta which may be associated with that which is commonly designated fibrous degeneration of the after-birth.

The placenta upon which the authors made their researches had been obtained under the following circumstances:—

During delivery, the after-birth was expelled spontaneously, but a portion of the membranes remained in the uterine cavity, and a breach of surface was observed at the periphery of the organ. The placenta presented numerous alterations; the chorion, especially near the margins, were thickened and marked with fibrous patches. Near the insertion of the vessels was found a large cyst, containing a thick aqueous serosity and a greyish coagulum; at the periphery of the placenta numerous smaller cysts were seen filled with a thick reddish or brownish serous

fluid which contained some elements of the blood. Finally, at various parts of the placenta, and particularly at its circumference, a number of the cotyledons were found converted into patches or masses of dense white fibrous tissue, from whence branches and prolongations sprung and extended towards the centre of the organ. That portion of the placenta that had been retained presented this fibrous transformation to a very great extent. Such were the principal changes visible to the naked eye. On a microscopical examination of those parts where the degeneration was more or less complete, none of the ordinary elements existing in the structure of the placenta could be recognised; nothing could be discovered save dense homogeneous connective tissue, enclosing a few cellular elements; at some points the commencement of the change could be seen—that is to say, that here a few villi, with their constituent elements, could still be found; but in the intermediate parts the villi were more or less extensively modified.

A detailed description is given of these morbid alterations, of which the following is a brief summary:—Between the trunks and the branches from which the villi arise a dense connective tissue is developed, which by compressing the villi and the vessels produces atrophy, so that the villi appear only as rounded appendages or like beads, enclosing fat globules, and suspended on fibrous or elastic stalks, in which no vessel can be found.

These morbid changes, according to the authors, altogether resemble those processes observed in cirrhosis. There is a chronic progressive formation of connective tissue between the villi; compression of their stalks and the branches which support them; obliteration of the vessels and consecutive atrophy of the villi. The authors place the starting-point of these changes in that part of the maternal placenta which is in contact with the uterine surface of the fetal portion.

The most important fact that seems to be derived from the researches of Hegar and Maier is, that the obliteration of the villi is not the initial phenomenon, but that it is consequent upon the development of a dense connective tissue between these bodies. It is seen from this that the alterations described by the authors do not enter into the group of placental morbid changes called “fibrous schirrous, lesions due to placentitis,” of which M. Robin has given as a character fibrous obliteration of the cavities of the villi of the after-birth.

ART. 252.—*Fracture of the Pelvis in a Pregnant Woman :
Recovery.*

By Dr. FAIRBANK.

(*Proceedings of the Obstetrical Society ; Medical Times and Gazette,*
January 19, 1867.)

Dr. Fairbank reported the following case on January 2nd, 1867:—

“A woman in the sixth month of her pregnancy was crushed between the wheel of a wagon and the parapet of a bridge. Immediately on

this happening there was a gush of blood from the vagina; and on removing the woman to her home, which was not far off, Dr. Fairbank was able to find that the pelvis was fractured, the fracture passing through the horizontal ramus of the pubis into the obturator foramen. The patient was chilly all over, the pulse was slow, and she was very pale. This happened in the afternoon, and when visited later her pulse was found to be rather better; but as the evening wore on, she became more and more restless; the pulse rose to 150 per minute, still she was able to pass urine. She spent a bad night, with occasional vomiting; and in the morning her abdomen was tense, her countenance anxious, and no fœtal sound could be heard. She got several doses of opium, and warm fomentations were applied over the injured parts. On the third day she was still more feeble, and her pulse was softer, but the vomiting still continued, and there was a certain amount of tenderness over the abdomen. On the 4th she was better, the pulse was 100, urine natural, and a strong belt was applied so as to compress the pelvis; from this she felt great relief. She continued to improve; and in two months she was able to walk about, but the right side of the pelvis continued flatter than the left. Three months after labour came on, and the fœtus was quickly expelled. When examined, it presented all the appearances of having reached a six months' maturity. It came to the knowledge of the reporter that she had been delivered of another child twelve months after this; a midwife having been employed at first, but from the tedious nature of the case, that a surgeon had been called in. So much time had been wasted before application had been made to this gentleman that the patient sunk after the child had been brought into the world."

ART. 253.—*On Hæmorrhage from Fibrous Tumour of the Uterus.*

By DR. MATTHEWS DUNCAN.

(*Edinburgh Medical Journal*, January, 1867.)

The bleedings from fibrous uterine tumour may be divided into two kinds, passive and active. Of these the more frequent and ordinary is the passive. For patients suffering from this disease are soon rendered anæmic. Their blood is watery; it oozes away, often copiously enough; it is not actively discharged. It is a loss to the patient, not a relief. All this is evident; but a more important distinction among such hæmorrhages remains to be made. They may be capillary—that is, from numerous vessels so small that their ruptured coats escape detection; or they may have their source in considerable venous sinuses temporarily or permanently open.

In a majority even of the graver cases, the hæmorrhage is from capillary vessels, resembling the hæmorrhage of ordinary menstruation, and having its source in the same vessels; that, occurring at monthly periods in women still ovulating, it is a menorrhagia differing from the more usual forms of menorrhagia in its peculiar exciting cause. It is

well known that in some cases of fibrous tumour of the uterus there is no loss of blood whatever. When extraordinary losses of blood do take place, there are, in varying cases, different explanations easily applicable.

First.—The mere presence of the tumour in the organ, acting as an irritant, may increase and prolong the common congestion and hæmorrhage of menstruation, or may produce these states apart from the periods of ovulation. This irritation is well known to increase according as the tumour is near the mucous membrane of the uterus, and it is natural to expect this result from its proximity; for when such tumours become polypoid or are true polypi, then there is a still further increase of irritation and of congestion, and a more frequent attendance of hæmorrhage upon the disease.

Second.—It is readily conceivable that, entirely apart from irritation of the uterus and especially of its mucous membrane, a fibrous tumour may cause and keep up capillary hæmorrhage by mechanically impeding the returning current or currents of venous blood as they pass through the uterine wall, or broad ligaments, or great veins of the pelvis. This is not only a conceivable, but is rendered in some cases a highly probable cause, by the study of the analogous condition of pregnancy. In the latter condition, tendency to hæmorrhoidal congestion and other venous diseases, in parts below the uterus, as well as to uterine bleeding, is not always the result of mechanical disorders. But there can be no doubt that it often is caused or aggravated by such bad mechanism, and removed or relieved by the simplest means for mechanically averting the evil, such as the use of posture.

Third.—There is another explanation of the great capillary hæmorrhages accompanying fibrous uterine tumour—namely, the existence in some cases of greatly increased extent of bleeding surface. Every pathologist is familiar with the very varying conditions of the uterine cavity in this disease. It is often distorted, often elongated, sometimes in addition greatly increased in real (not potential) capacity. Of all these conditions examples are constantly occurring. The source of menstrual hæmorrhage is this mucous surface, and it is natural to expect with the increase of its superficial extent the amount discharged should also be augmented. I see no reason for doubting that all the mucous surface of the body of the uterus, or of parts connected directly with it, such as the mucous membrane investing a fibrous tumour, yields the bloody flux.

Lastly.—Among the causes of capillary hæmorrhage may be mentioned presence or misapplication of uterine contraction. Whether this be really influential in cases of this kind, Dr. Duncan is not prepared to assert. He merely suggests the investigation of the question for physiological inquirers. That in the second great class of hæmorrhages in connexion with fibrous tumour it has a potent influence, he has no doubt. The second class of hæmorrhages in this disease is that from open venous canals. If the former class finds an analogue in menorrhagia, this class finds its analogue in the floodings of pregnancy, an analogy which future improvements in surgery may extend to the treatment of it.

The great anatomical fact in this class of hæmorrhage is the close resemblance of the development or hypertrophy of the muscular tissue

of the uterine walls to that occurring in normal pregnancy. The muscular tissue and the uterine sinuses ramifying in it, and especially in the looser layers immediately surrounding the tumour, grow in a closely similar manner. The uterine development in fibrous tumour is confined to the proper or muscular layer of the organ. At no stage of the disease (uncomplicated with pregnancy) is there any production of the wonderful decidual hypertrophy of its mucous membrane. The hypertrophy of the muscular coat is often, indeed generally, in interstitial tumours, greater than in a pregnancy of corresponding bulk. At no time before parturition is the proper tissue of the uterine wall seen of the thickness of an inch, as it may be found around such tumours. The same exaggerated size is observed, in many cases, in the uterine sinuses ramifying around a fibrous tumour. Both these differences may be due to the comparative long continuance of the morbid cause of hypertrophy, and perhaps to its essential unnaturalness or morbidity. Lastly, there are great differences in the shape of the uterus and in the thickness of the different muscular layers in cases of fibrous tumours, otherwise apparently alike.

"The venous vascular network," says Cruveilhier, "between a fibrous tumour and the tissue of the uterus, always considerable, even in fibrous tumours of small size, becomes truly prodigious when fibrous tumours have acquired large volume, and especially when they are œdematous. Thus, around an œdematous fibrous tumour, of the bulk of the head of an adult, I have found veins of the size of the little finger filled with coagulated blood. It is from openings in these vessels that the active hæmorrhage in uterine tumours occurs."

The first kind of opening is a simple round aperture, establishing a connexion between the uterine cavity and one of the large sinuses lying in the muscular tissue enveloping a tumour.

The second kind of opening, according to Cruveilhier, "consists of openings of the uterine sinuses, large, and occupying the lower part of the tumour."

The third kind of opening is the result of partial expulsion of the spontaneously enucleated tumour into the uterine or vaginal cavity.

ART. 254.—*Application of Solid Nitrate of Silver, &c., to the Interior of the Uterus in Menorrhagia.*

(*Edinburgh Medical Journal*, June, 1867.)

At a meeting of the Obstetrical Society of Edinburgh on the 13th of February Sir James Y. Simpson spoke of the success which sometimes attended the introduction of a solid piece of nitrate of silver into the uterine cavity, in cases of obstinate menorrhagia that were independent of the presence of polypi or of fibroid tumours in the walls of the uterus. For this purpose he had generally used a short piece of solid nitrate of silver, made half the thickness of the usual stick, and introduced and lodged in the uterine cavity by a hollowed or tubular instrument, of the size of the common uterine sound. In some cases the hæmorrhage was arrested by this treatment, as it is in internal rectal

hæmorrhoids by the application of slight caustics. The powder of the persulphate of iron may be lodged in the uterus for the same purpose. He considered solid substances and powders as much more safe applications to the interior of the uterus than any forms of fluid injections. The occasional danger arising from the latter was not, he believed, so much from their passing along the Fallopian tubes into the peritoneal cavity, as from their sometimes over-distending the uterus, and fissuring and tearing through its mucous surface, thus getting fatal access to the circulation.

Dr. Burn mentioned one case where the above treatment produced a curative result, but only for the time being.

Dr. Cochrane spoke in favour of the injection of the tinct. mur. ferri.

Sir James Simpson suggested caution in the use of fluid injections into the uterus, as some doctors had used such, and the patient died before they left the house. He (Sir J.) stated that the powder of the persulphate of iron might be introduced into the uterus with safety.

Dr. Stephenson had pursued the treatment of injection of Condyl's fluid, and the bichlor. of iron in one case, without any harm resulting. But in his case the os was open and patulous.

ART. 255.—*On the Cure of Ovarian Cysts without Operation.*

By Dr. COURTLY.

(*Revue de Thérap. Méd.-Chir.* ; and *Edinburgh Medical Journal*,
June, 1867.)

The author introduces his subject by carefully stating that no one could be less easily convinced than himself of the efficiency of any method of treating ovarian dropsy except ovariectomy. Two cases were, however, cured by him without operation. He classifies the remedies employed into :—1. Preparations of gold, especially the oxide, in doses of $\frac{3}{100}$ th to $\frac{7}{100}$ th of a grain ; 2. Analeptics and tonics, as Vichy water, iron, quinia, &c. ; 3. Abdominal friction, with iodides of lead and of potassium ; 4. Diuretics, also applied by friction, chiefly squill, digitalis, and nitre ; and, 5. Graduated compression of the abdomen by elastic bandages. The gold was prescribed in the pleasant form of tablet prepared with chocolate, and the frictions were made over all the body with soft woollen cloths soaked in tinctures of squill and digitalis, by which it is worthy of note, marked diuresis was caused. The first case was of an unmarried woman, forty-three years old, with a large, probably unilocular, cyst of the right side, which had existed for four years. Under the above treatment, the tumour disappeared in a month, and there were no symptoms of a recurrence of the disease three years afterwards. In a second case, a young girl of twelve, with a large multilocular cyst, was treated on the same principle ; improvement occurred in fifteen days, and a cure, which promises to remain permanent, was produced in six months. Dr. Courtly mentions having seen this disease in a still younger patient under the charge of Professor Simpson of Edinburgh.

(c) CONCERNING THE DISEASES OF CHILDREN.

ART. 256.—*Of the Causes of the Mortality of Nurse-Children.*

By M. GUÉRIN.

(Archives Générales de Médecine, Février, 1867.)

In a discussion upon nursing and the mortality of infants, held before the Académie de Médecine, M. Guérin stated that there were two great classes of facts upon which the excessive mortality of children depended. The first relates to the mode of alimentation. M. Guérin has, after twenty-five years' observation, arrived at the conclusion that the predominant cause of infantile mortality is premature alimentation. This fact is far from being generally known, and is scarcely mentioned in classical works and dictionaries. By premature alimentation, M. Guérin means a diet which is too substantial, and which is not fitted to the age of the infant, an age when the digestive organs are not qualified for receiving any other kind of nourishment than milk; it generally consists of broth, sops, &c., which are given, in too many instances, to children at the earliest period of their existence. The importance of this fact, and its consequences, may be judged from the fact brought before the Académie de Médecine, that many nurses find it impossible to feed the children entrusted to their care with milk.

M. Guérin thinks that the charge against artificial alimentation of being the cause of infantile mortality is not a just one; for thirty years he has tried the milk of different animals, and he has observed that the same effects were produced by all these as by the milk of the woman. Premature alimentation influences the development of *tabes mesenterica*, of rickets, and produces a state of constitutional debility which renders the child liable to disease.

Another much more serious fact has been pointed out by M. Brochard—viz., the lingering death of these wretched children handed over to nurses who are devoid of maternal feelings and moral instincts. They succumb not to the effects of a diet unsuited to their age, but from the absence of nourishment. They perish of inanition.

M. Guérin mentions a third interesting fact in connexion with the evil results of premature alimentation. "All children," he says, "brought up in this manner do not die, some escape all its dangers, and reach the age of conscripts. But recruiting experiences prove that lamentable results are brought about by such defective management of young children. There is not only a decrease in numbers, but there is also a degeneration of the race. The standard of height is lowered from year to year, and the number of rejections increased."

ART. 257.—*On Congenital Encephalitis and Myelitis.*

By RUDOLPH VIRCHOW.

(Virchow's Archiv, Bd. xxxviii. Hft. 1, 1867; Gazette Hebdomadaire, No. 17, 1867.)

The condition of the brain in infants still-born, or dying soon after birth, is a very important point in forensic medicine. Yet, as Virchow remarks, in reports which exercise so considerable an influence as proofs either of innocence or of crime, the conclusions of the expert do not rest upon a strict scientific basis. Very often it has been admitted that a child died from apoplexy, when at the autopsy nothing more was found than congestion of the vessels of the brain and its membranes. Unfortunately it would be difficult to establish the extent of vascularity which corresponds to death. It must, therefore, be asserted that as these examinations are not based upon strict scientific data, they can supply only uncertain conclusions.

Numerous researches have demonstrated to Prof. Virchow that in a very great number of young children still-born, or dying a short time after birth, a form of alteration is presented which has a much more important significance than central congestion. This consists in changes in the nerve-tissue itself, which can only be recognised with the aid of the microscope. All that is required in order to discover the existence of this alteration is to place under the microscope a thin section of central substance. It is in the cells of the neuroglia, that is, in the interstitial tissue of the brain, that the principal characters of these morbid changes have to be sought for. The alteration is in a fatty metamorphoses of the cells of the neuroglia. These elements increase very much in size; they become filled with fat globules, and for some time form large round granular bodies, in which the nucleus which disappears soon afterwards may still be recognised. Finally, in a more advanced stage, there can be seen only small round masses made up of fat globules, round which no membrane can be perceived. These granular bodies and masses of fat globules have their seat particularly in the white substance of the brain, the grey matter is only affected secondarily. They are met with principally in the hemispheres of the brain, and in the columns of the cord. In cases where this morbid change is very marked, most of the cells of the neuroglia, in the regions named above, undergo transformation, and then the tissue under the microscope is seen regularly dotted with small fatty masses, of a dark colour, when the light is transmitted. These masses, when of small size, are quite distinct from the nerve-tissue; and when they are large they may be perceived to be made up of an agglomeration of small globules, which, after the tissue is broken up, separate and float about in the fluid upon the glass.

Nerve-tissue may contain a very great number of these altered elements without presenting to the naked eye or to the finger any evidences of change either in colour or consistence. In some cases, however, one may discover upon the cut surface of the brain or spinal cord small spots, points, or patches of a yellow colour, frequently only just visible;

but in some rare instance from one quarter to one half of an inch in extent. Altered consistence may present itself in some cases where there is destruction of the nerve substance. There exists, then, a *ramollissement*; and in these very rare cases the whole of the interior of the hemispheres of the brain may be found converted into a softened mass, which can be easily reduced to a semi-liquid state.

The spots cannot be easily confounded with other forms of morbid change, but the extensive pulpy softening cannot be distinguished from post-mortem *ramollissement* except by the aid of the microscope, which exposes the cells of the neuroglia filled with fat globules. The softened tissue is generally of a pale colour; but when there has been extreme hyperæmia, or rupture of the blood-vessels, it may be red or reddish-grey.

Such are the principal alterations that are observed. These are evidently the results of some interstitial process. But what is the real nature of these changes? Are they due to disturbed nutrition, to atrophy, or are they produced by active irritation? Virchow holds that these lesions constitute encephalitis and interstitial myelitis.

In fact, the progress of the changes in the cells of the neuroglia corresponds with the idea of inflammation; enlargement of the cells, increased number of granular contents, division of the nuclei and multiplication of the cells precede the fatty transformation. The process has at its commencement sometimes the character of hypertrophy, at other times that of hyperplasia; hyperæmia frequently so intense as to justify the pathologist in giving to this condition of things the name of apoplexy, supports this view; hyperæmia, it is true, is one of the least constant and most uncertain signs; but although it is frequently absent, and does not supply any reason for suspecting any lesions, it may, in certain cases, be so marked as to give to the brain a notable appearance. The congested white substance of the brain contrasts very strongly with the grey matter, this is comparatively pale, whilst the white substance itself has become very red. On making a section of the brain, the relations of the two substances seem to be inverted, and one could easily imagine the white substance to be on the surface of the organ. The question of the etiology of these special changes becomes a very important one to determine. Up to the present time Virchow has observed these lesions, particularly in cases of syphilis and of the acute exanthems, principally small-pox, when the mother alone has been affected with the disease and the child has presented no trace of the eruption. But it remains to discover how far rheumatism and the puerperal state may act in the production of encephalitis; whatever may be the cause, a child is often said to have died from atrophy or diarrhoea when the autopsy demonstrates the existence of an inflammation of the white substance of the brain. In addition to the importance of the encephalitis of newly-born children from a medico-legal point of view, it would be interesting to decide upon the possibility of a cure of the disease, and whether these morbid processes have not an active influence upon the production of infantile paralysis or icterus.

ART. 258.—*Icterus of Infants.*(Meigs' *System of Obstetrics*, 5th edition.)

The icterus of the young child, Dr. Meigs says, in his valuable work on midwifery, doubtless depends upon the resorption of bile from the pori biliarii into the returning branches of the hepatic vessels, whereby the whole mass of the blood becomes stained with its yellow colouring material, which begins to appear first upon the colourless adnata, and next upon the whole dermal surface. Such a state of the skin does not imply a primary disease of the liver itself, since there are certain irritations affecting the duodenum, producing some degree of engorgement round about the ductus communis choledochus, and passing up along that tube, which might well suffice to detain the secreted bile in the pori biliarii, and cause its regurgitation in the manner above indicated. A dose of purgative medicine, freeing the stomach and duodenum, and jejunum from some certain saburra, and relieving them thereby of a troublesome hyperæmia, seems to Dr. Meigs likely to set the gates of the bile wide open, so that the regurgitation no longer being affected, the constitution soon eliminates the colouring matter of the bile from the blood, leaving the skin to recover its healthful hue and softness. In those cases in which the inspection of the dejections shows that the bile escapes freely through the ductus communis into the duodenum, Dr. Meigs is always willing to wait for the result of such outflowing of the liquid, and the spontaneous return of the liver to its normal functional rate. Whenever, on the contrary, he discovers whitish or clay-coloured stools, or stools tinted faintly with a whitish-yellow bile, he administers to his patient some doses consisting of the sixth part of a grain of calomel, repeated three or four times a day, and followed by a convenient quantity of castor-oil or magnesia, or other approved aperient.

ART. 259.—*Two Cases of Fatal Hæmorrhage from the Gums after Scarification.*

By JAMES YOUNG, M.D.

(Edinburgh Medical Journal, June, 1867.)

At a meeting of the Obstetrical Society of Edinburgh on the 13th February, Dr. Young read the notes of two cases of fatal hæmorrhage after scarification of the gums, which occurred in his father's practice some years ago. Sir James Simpson or Dr. Alexander Simpson saw one of them along with his father.

"CASE 1.—A child living in the Crosscauseway, aged twenty months, presented no evidence of disease in any respect beyond the ordinary irritation from teething. The teeth already cut had each produced some disturbance, but without requiring scarification. With the first eye-tooth, some febrile symptoms were manifested. My father was

sent for, and without the least hesitation he advised scarification of the gum, which was forthwith done. A sudden and rather profuse welling of florid blood immediately appeared, and not at once ceasing, as is usually the case, pressure with thumb and forefinger was applied. The hæmorrhage seemed to be allayed, but on withdrawal of the finger, it continued to ooze up and filled the mouth. Nitrate of silver was applied steadily and pressure again, and yet the blood continued to flow. My father became somewhat anxious, and sent for me. We applied lint, moistened in a solution of the perchloride of iron and glycerine, with as much pressure as possible, and yet the hæmorrhage continued. The last alternative was the hot wire, which was applied the same evening, after Sir James Simpson had seen the case. Next morning, although pressure had been kept up more or less during all the night, and the child fed on beef-tea and wine, with use of iron internally, the hæmorrhage continued. After twenty-four hours' incessant oozing, the child became pale and exsanguine, and yet, extraordinary to say, the child lived for three or four days. Nothing had the least effect in checking the flow of blood, except the pressure, and only so during its application. There was no hæmorrhagic diathesis; the child had never lost blood before, was perfectly healthy, and of healthy parents. The blood was florid. The question here arises, how deep should the scarificator be pressed into the gum, or should the gums be scarified at all, until the teeth are shining through? Scarification may be necessary when the tooth is not close at hand, and the same tooth may require to be cut repeatedly. I have known a case of this kind where the child was attacked with convulsions, which ceased from the incision of the gum; the wound healed up, and the convulsions returned not less than six times from the same tooth, and ceased every time after cutting the gums. Then, again, suppose the scarificator be placed deeply in the gum, is it possible that the small offsets or minute twigs of the dental or alveolar branches of the internal maxillary artery could bleed to such an alarming extent without some other cause? What that was, I leave my seniors to divine.

The second case occurred at Holyrood; the only difference being that in this case it was the first molar tooth of the upper jaw, while in the first case it was one of the eye-teeth of the lower jaw. The child here was about eighteen months old, and had neither in itself nor mother presented any symptom of a hæmorrhagic tendency. The same result followed the scarification, the same treatment was pursued, and, I regret to say, it had the same painful issue. The child survived one week.

Sir James Simpson thought such cases very uncommon. Mr. Robertson, he said, had been in the habit of using an instrument to produce steady pressure on the gum in cases of hæmorrhage. In cases of umbilical hæmorrhage, Dr. Churchill had proposed the use of sulphate of lime powder. He spoke of a case of umbilical hæmorrhage he had seen with Dr. Moir—a child—where the umbilicus was transfixed with needle and suture. The hæmorrhage ceased for a while, but returned. The perchloride of iron was applied, and the child recovered.

APPENDIX.

The Report of the Venereal Commission.

(*British Medical Journal*, January 1 and 8, 1867.)

The following is an abstract of some of the leading points of interest in the Report of the Committee appointed by the Lords of the Admiralty to inquire into the best mode of treatment of the Venereal Disease, with a view to diminish its injurious effects on the men of the army and navy:—

That part of the Report which relates to the prevention of venereal disease, having been required for the use of the Legislature, was forwarded to the authorities in February, 1866, and an Act, entitled “An Act for the better Prevention of Contagious Diseases at certain Naval and Military Stations,” 11th June, 1866, was passed in the last session of Parliament, in entire accordance with the recommendations of your Committee. A copy of that Act is appended to this Report.

I. On the subject of prevention, the Committee have no further suggestions to offer; but they would at the present moment, when the attention of Parliament is drawn to the subject of better legislation for the mercantile marine, respectfully call attention to the concluding passage of that Report, referring to “the fertile source of disease in our sea-port towns afforded by the sailors of the merchant service.”

II. Referring to the declaration of Dr. MacLoughlin laid before the Admiralty, that the health of the men in the public service (soldiers and sailors) is habitually damaged by the use of mercury, which the writer alleges to be indiscriminately administered by surgeons in the public service, for the cure of a disease, which, in his opinion, has no existence, they affirm that, on the contrary, the evidence establishes that the practice generally adopted in the Navy and Army is in accordance with the methods most approved by the highest authorities in the profession, and that the medical officers of both services have shown themselves to be thoroughly impressed with the importance of a careful and judicious treatment of the disease. They also affirm that there is a syphilitic virus, and that syphilis is a disease as specific as small-pox.

III. As to the *origin of syphilis*, several of the witnesses, and with them a portion of the committee concur in opinion, expressed their belief that syphilis, under favouring circumstances, may be generated spontaneously. That syphilis was first introduced into Europe at the latter end of the fifteenth century, is an opinion now entertained by the few.

IV. Of Venereal Sores they describe two species: the *syphilitic* and *simple*. The *simple local sore*, the influence of which never extends beyond the inguinal glands, is eminently contagious, producing similar sores, but is incapable of infecting the constitution; like gonorrhœa, it is often the product of irritating and contagious secretions. This is the most common form of venereal sore, and prevails over all other varieties in a ratio of about four to one.

The syphilitic sore is seen under three forms: one characterized by induration throughout its entire course; one soft in its early stage and becoming subsequently indurated; and one soft throughout its whole course, but which, unlike the simple local sore, is followed by constitutional disease. All primary venereal sores are liable to involve the inguinal glands; the soft frequently, the hard almost invariably.

The evidence is conclusive as to the impossibility of pronouncing with certainty upon the character of a sore on its first appearance, *i.e.*, as to whether it will or will not be followed by constitutional symptoms; in other words, whether or not it be a syphilitic sore. As a rule, however, the exceptions to which are rare, a soft sore, whether followed by suppurating bubo or not, is only a local disease, and does not infect the constitution; and an indurated sore, more especially if accompanied by indurated inguinal glands, does infect the constitution.

V. The constitutional manifestations of syphilis follow the primary sore at an uncertain interval of time, ranging from four to ten weeks, the average term being about six weeks.

Although the evidence tends to the belief in the occasional development of any of these forms of eruption and other disease, in a given case, the Committee have sufficient ground for expressing their opinion that the dry and painless forms of eruption, *viz.*, psoriasis, lepra, and tubercle, but especially the two former varieties, constitute the predominant symptoms following the indurated sore, and that the remainder more commonly follow the varieties of the soft or moist sore.

VI. *Syphilis in its ultimate form* is capable of affecting every organ of the body. The changes which occur in the inveterate forms of the more advanced stages of syphilis, are due to the deposition of a fibro-plastic material in the various tissues of the body. This product appears to be identical with that which, in the so-called "secondary" stage, is exuded in the bones, in the glands, on the iris, and indeed in the indurated chancre itself; but is now liable to be poured out in any structure, where areolar tissue exists. In addition to these characteristic and peculiar effects of syphilis, there is a tendency in those who have long been its victims to suffer from degeneration of the tissues of the body; and thus a very frequent cause of the mortality in long-standing syphilis is a universal fatty or lardaceous decay of the organs.

VII. *Hereditary Syphilis* is the cause of a number of cases of still-births and abortions, and of well-known changes in the development of the infant. Thus, very often the whole body is puny, the forehead projects, the nose is flattened, the skin around the mouth is often puckered from old ulcerations; and lastly, and most important, a peculiar change takes place in the teeth, the incisors being dwarfed in size, narrowed, rounded, and notched.

VIII. As to the *Period of Incubation*. Upon the whole, the weight of evidence greatly preponderates in favour of the view that there is no definite period of incubation, either for the infecting or the non-infecting sore; assuming the term incubation to imply such an uniformity as exists in the period of incubation of other specific diseases, as measles, small-pox, etc.

IX. As to the date expressed at which the constitution is involved. It is possible that the poison of syphilis may be carried into the circulation from the moment of contact, in whatever manner that is effected; but it is more probable that time is required to this end.

X. The *mode* in which the poison is received into the system is equally doubtful.

XI. As to the question of *unity or duality of virus*, they add, that there is probably but *one* true syphilitic poison exerting its influence upon the soil in which it is implanted, producing various forms of true syphilitic sores, differing in different individuals, modified by health, and by constitution, by locality, and probably by its ever-varying intensity.

XII. Of thirty-three witnesses, twenty-three asserted that one attack of syphilis gives no future immunity.

XIII. As to *relapses*, and the period of safety for marriage. The subject admits of division into safety as respects imparting the disease in its secondary stage to the other sex, directly through the medium or the secretions; and safety as respects imparting it indirectly, through the fœtus to the mother. Some witnesses do not admit the former liability, while the majority consider that secondary disease may be directly imparted through the medium of a moist secretion, as from a tubercle; but all agree in the belief that a syphilitic father, though presenting no appearance of disease, may beget a syphilitic child, and that that child, through the medium of its blood, may impart the disease to its previously healthy mother.

XIV. Evidence is conclusive to the effect that syphilis may be communicated by intercourse during either of its stages, local or constitutional.

The Local and other Varieties of Soft Sore.—The simple or non-infecting sore (and, indeed, all sores unmarked by specific induration) should be treated almost entirely by local applications, having for their object to allay pain or inflammation, and protect the sore from injury. There is no remarkable feature in the progress of the inguinal glands towards suppuration which demands comment. Their liability to suppurate, however, renders the destruction of the sore by escharotics desirable. Such treatment should only be resorted to in the earliest stages of the sore, and probably not later than two days from its first appearance.

Mercury will neither arrest the progress of glandular enlargement, nor prevent suppuration.

The balance of two opinions is rather favourable to treatment of the primary hard sore by mercury. The alternative to the employment of mercury consists in simple local treatment, the avoidance of local irritants, whether medical or mechanical, attention to cleanliness, and to the improvement of the general health.

If treatment by mercury be selected, the agent should be adminis-

tered more freely to a strong and vigorous person than to one of delicate habit; and whatever the mode of exhibition, whether employed internally by the mouth, by inunction, or by means of vapour-baths, the first indication of its presence in the system should be accompanied by a reduction of the quantity employed, and the reduced dose maintained so long as an impression is made on the deposit, and the bodily health of the individual remains undisturbed.

Treatment of primary sores, whether by excision or by escharotics, constitutes a prominent feature in the modern practice of surgery, and, under favourable conditions, may be resorted to with great advantage.

In the case of the soft infecting sore, it is obviously of great moment to destroy the local poison, and avert the train of constitutional symptoms which may possibly, nay, probably will, follow. Should the destruction of this sore by caustic fail of its object by reason of its imperfect application, or of the too advanced stage of the sore, it is not improbable that the consequences would be injurious, and that an earlier development of the poison in the system would result. The rule of practice, which limits the operation of destruction to the two or three days from the first development of the sore, must, therefore, be strictly adhered to. For the reasons before given, it is an operation which can rarely be resorted to with a prospect of success in the hospital class of patients.

The application of local agents for the purpose of destroying the hard sore is useless.

XVI. *Treatment of Syphilis, i.e., Constitutional Disease. Mercury.* The opinion of the Committee is unanimous in favour of mercury as the most efficient agent yet known in the treatment of constitutional syphilis. Mercury cannot be deemed a specific in the ordinary acceptance of that term, and does not appear to exercise any direct influence on the poison of syphilis, but on the effects of the poison only. If there be any forms of syphilis in which mercury is especially contraindicated, they are the pustular and rupial forms of the disease. When the gums and breath are affected, it may be inferred that the maximum quantity of mercury that can prove serviceable in the treatment has been reached, and it is desirable to reduce the quantity.

Sarsaparilla possesses no especial virtues of its own, and is inferior to the various forms of bark.

The same remark may be made of guaiacum, sassafras, and of the Indian root of Mudar, which at one time was largely employed by the natives of India as a supposed antisymphilitic agent.

Upon this important branch of their instructions, the Committee are of opinion—1. That, until a more efficient remedy be discovered, the occasional employment of mercury cannot be dispensed with; 2. That, employed in moderation, and under judicious restrictions, it is to the large majority of constitutions harmless; and 3. That, when employed in such larger quantities as will cause salivation, the excess is not only useless, but assumes the character of a poison.

The belief in the value of mercury as an antisymphilitic agent is strengthened by observation of its remarkable influence in the hereditary syphilis of new-born children. The evidence of the witnesses testifies

strongly to the value of mercurial treatment, by the adoption of which children in great numbers are annually restored to health.

XVII. Although they have reason to believe that *Syphilization* may prove serviceable in such chronic cases as have failed to yield to more ordinary treatment, they have no sufficient evidence of its curative properties to outweigh the obvious objections to its general employment; and, even accepting the entire truth of the reports of its curative powers, the treatment is repugnant to the habits and feelings of the profession in this country, and, in the majority of cases, is slow of operation.

XVIII. The syphilis of infants has no enemy to contend with more potent than a weak and anæmic state of the constitution, which disappears on the improvement of the general health. The disease, for the most part, according to the evidence above referred to, attacks children ill-nourished and ill-tended, who consequently fail in vigour of circulation. These children are placed on a nourishing diet, and supplied with strengthening remedies, medical and dietetic; and the disease subsides, and the cure is declared to be effected at a shorter date than that obtained through treatment by mercury.

Such is the evidence before the Committee, founded, however, on a rather limited number of cases, but which, although numerically small, is sufficiently important to claim the attention of the profession, and to justify a renewed inquiry in a larger and more general field of observation.

XX. *Phagedæna*. In nearly all forms of phagedæna, the morbid action will cease on the destruction of the affected part. The agent most generally resorted to is nitric acid, which, in the less active forms of the disease, may be reduced in strength by the addition of three, six, or eight proportions of water. In the severe and destructive examples, nothing short of the strong acid, or any other equally powerful escharotic, will suffice to arrest it. The constitutional forms are extremely intractable. They defy the ingenuity of the surgeon, and set at naught every variety of remedy brought to bear on them. With a worn and debilitated frame, bark, iodine, mineral acids, wine and nutritious food, and the freshest accessible atmosphere, are the principal remedies on which reliance must be placed.

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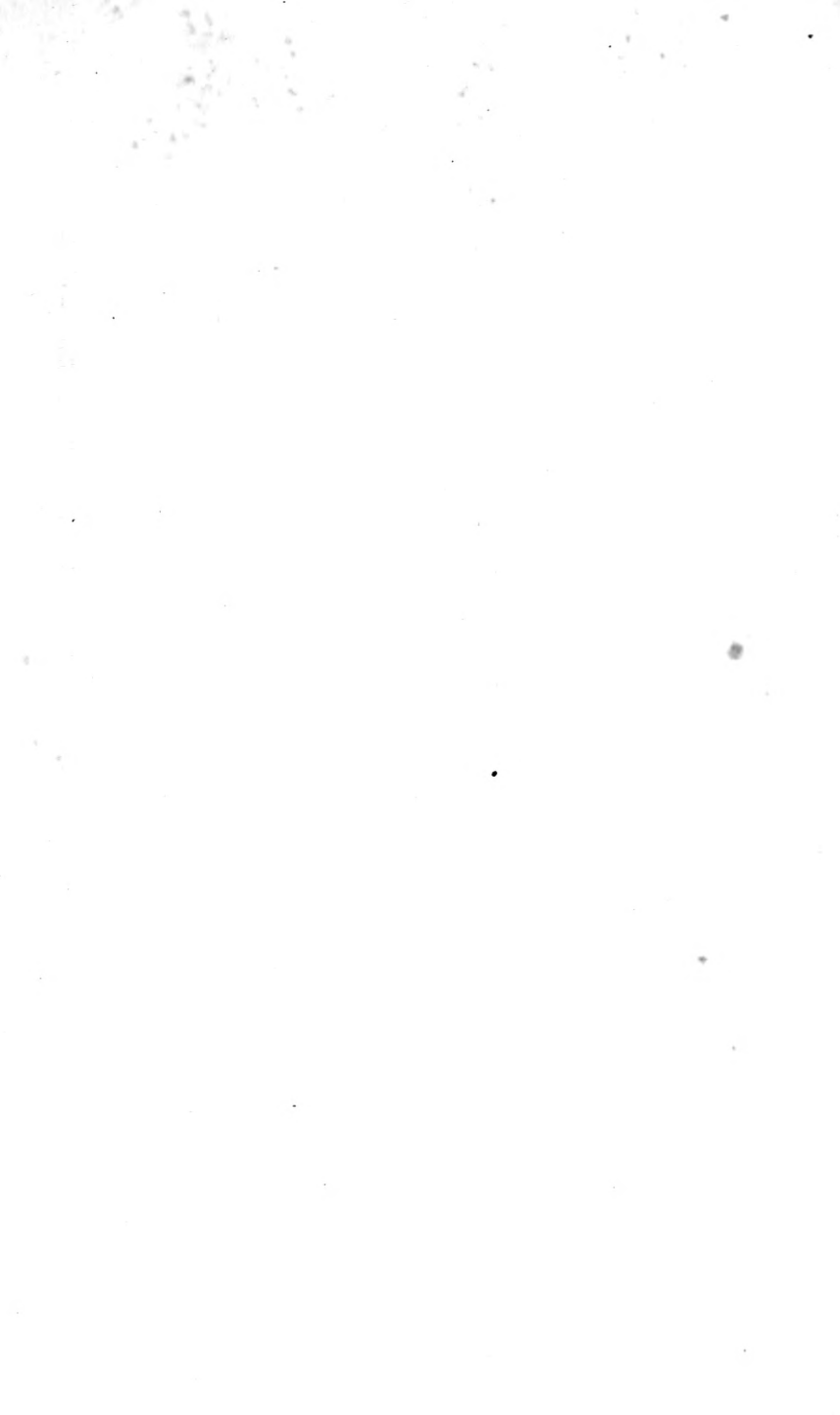
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